

Analytical Data Package Prepared For

Pacific Northwest National Lab

Radiochemical Analysis By

STL Richland STLRL

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Data Package Contains _____ Pages

Report Nbr: 30860

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04799	A06-010	B1DYR6	J5J200181-1	HM6AF1AA	9HM6AF10	5299563
		B1DYR6	J5J200181-1	HM6AF1AC	9HM6AF10	5299573
		B1DYR6	J5J200181-1	HM6AF1AD	9HM6AF10	5299576
		B1DYR6	J5J200181-1	HM6AF1AE	9HM6AF10	5299629
		B1DYR6	J5J200181-1	HM6AF1AF	9HM6AF10	5299559
		B1DYR6	J5J200181-1	HM6AF2AG	9HM6AF20	5299557
		B1DYR7	J5J200181-2	HM6AQ1AA	9HM6AQ10	5299563
		B1DYR7	J5J200181-2	HM6AQ1AC	9HM6AQ10	5299573
		B1DYR7	J5J200181-2	HM6AQ1AD	9HM6AQ10	5299576
		B1DYR7	J5J200181-2	HM6AQ1AE	9HM6AQ10	5299629
		B1DYR7	J5J200181-2	HM6AQ1AF	9HM6AQ10	5299559
		B1DYR7	J5J200181-2	HM6AQ2AG	9HM6AQ20	5299557
		B1DYT6	J5J200181-3	HM6AX1AA	9HM6AX10	5299563
		B1DYT6	J5J200181-3	HM6AX1AC	9HM6AX10	5299573
		B1DYT6	J5J200181-3	HM6AX1AD	9HM6AX10	5299576

Comments:

Report Nbr: 30860

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04799	A06-010	B1DYT6	J5J200181-3	HM6AX1AE	9HM6AX10	5299629
		B1DYT6	J5J200181-3	HM6AX1AF	9HM6AX10	5299559
		B1DYT6	J5J200181-3	HM6AX2AG	9HM6AX20	5299557
		B1DYV1	J5J200184-1	HM6CN1AA	9HM6CN10	5299563
		B1DYV1	J5J200184-1	HM6CN1AC	9HM6CN10	5299573
		B1DYV1	J5J200184-1	HM6CN1AD	9HM6CN10	5299576
		B1DYV1	J5J200184-1	HM6CN1AE	9HM6CN10	5299629
		B1DYV1	J5J200184-1	HM6CN1AF	9HM6CN10	5299559
		B1DYV1	J5J200184-1	HM6CN2AG	9HM6CN20	5299557
		B1DYW0	J5J200184-2	HM6CR1AA	9HM6CR10	5299563
		B1DYW0	J5J200184-2	HM6CR1AC	9HM6CR10	5299573
		B1DYW0	J5J200184-2	HM6CR1AD	9HM6CR10	5299576
		B1DYW0	J5J200184-2	HM6CR1AE	9HM6CR10	5299629
		B1DYW0	J5J200184-2	HM6CR1AF	9HM6CR10	5299559
		B1DYW0	J5J200184-2	HM6CR2AG	9HM6CR20	5299557
		B1DYV3	J5J200184-3	HM6CV1AA	9HM6CV10	5299563
		B1DYV3	J5J200184-3	HM6CV1AC	9HM6CV10	5299573
		B1DYV3	J5J200184-3	HM6CV1AD	9HM6CV10	5299576
		B1DYV3	J5J200184-3	HM6CV1AE	9HM6CV10	5299629
		B1DYV3	J5J200184-3	HM6CV1AF	9HM6CV10	5299559
		B1DYV3	J5J200184-3	HM6CV2AG	9HM6CV20	5299557
	S06-010	B1F1F2	J5J210189-1	HM93M1AA	9HM93M10	5299563
		B1F1F5	J5J210189-2	HM9311AA	9HM93110	5299563
		B1F1F8	J5J210189-3	HM9351AA	9HM93510	5299563
		B1F1D6	J5J210189-4	HM9361AA	9HM93610	5299563
		B1F1D6	J5J210189-4	HM9361AC	9HM93610	5299632

Comments:

Report Nbr: 30860

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04799	S06-010	B1F1D6	J5J210189-4	HM9361AD	9HM93610	5299573
		B1F1D6	J5J210189-4	HM9361AE	9HM93610	5299576
		B1F1D6	J5J210189-4	HM9361AF	9HM93610	5299629
	A06-010	B1DYT4	J5J220210-1	HNE5H1AA	9HNE5H10	5299563
		B1DYT4	J5J220210-1	HNE5H1AC	9HNE5H10	5299573
		B1DYT4	J5J220210-1	HNE5H1AD	9HNE5H10	5299576
		B1DYT4	J5J220210-1	HNE5H1AE	9HNE5H10	5299629
		B1DYT4	J5J220210-1	HNE5H1AF	9HNE5H10	5299559
		B1DYT4	J5J220210-1	HNE5H2AG	9HNE5H20	5299557
		B1F1B5	J5J220217-1	HNE531AA	9HNE5310	5299559
		B1F193	J5J220217-2	HNE571AA	9HNE5710	5299563
	S06-010	B1F193	J5J220217-2	HNE571AC	9HNE5710	5299576
		B1F193	J5J220217-2	HNE571AD	9HNE5710	5299630
		B1F392	J5J220219-1	HNE6F1AA	9HNE6F10	5299563
		B1F392	J5J220219-1	HNE6F1AC	9HNE6F10	5299573
	I06-001	B1F392	J5J220219-1	HNE6F1AD	9HNE6F10	5299576
		B1F392	J5J220219-1	HNE6F1AE	9HNE6F10	5299583
	A06-010	B1DYT7	J5J250137-1	HNH1P1AA	9HNH1P10	5299563
		B1DYT7	J5J250137-1	HNH1P1AC	9HNH1P10	5299573
		B1DYT7	J5J250137-1	HNH1P1AD	9HNH1P10	5299576
		B1DYT7	J5J250137-1	HNH1P1AE	9HNH1P10	5299629
		B1DYT7	J5J250137-1	HNH1P1AF	9HNH1P10	5299559
		B1DYT7	J5J250137-1	HNH1P2AG	9HNH1P20	5299557
		B1DYT8	J5J250137-2	HNH1V1AA	9HNH1V10	5299563
		B1DYT8	J5J250137-2	HNH1V1AC	9HNH1V10	5299573
		B1DYT8	J5J250137-2	HNH1V1AD	9HNH1V10	5299576

Comments:

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SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W04799	A06-010	B1DYT8	J5J250137-2	HNH1V1AE	9HNH1V10	5299629
		B1DYT8	J5J250137-2	HNH1V1AF	9HNH1V10	5299559
		B1DYT8	J5J250137-2	HNH1V2AG	9HNH1V20	5299557
		B1DYT0	J5J250137-3	HNH1W1AA	9HNH1W10	5299563
		B1DYT0	J5J250137-3	HNH1W1AC	9HNH1W10	5299573
		B1DYT0	J5J250137-3	HNH1W1AD	9HNH1W10	5299576
		B1DYT0	J5J250137-3	HNH1W1AE	9HNH1W10	5299629
		B1DYT0	J5J250137-3	HNH1W1AF	9HNH1W10	5299559
		B1DYT0	J5J250137-3	HNH1W2AG	9HNH1W20	5299557
	I06-001	B1F356	J5J250143-1	HNH161AA	9HNH1610	5299563
		B1F356	J5J250143-1	HNH161AC	9HNH1610	5299573
		B1F356	J5J250143-1	HNH161AD	9HNH1610	5299576
		B1F356	J5J250143-1	HNH161AE	9HNH1610	5299583
		B1F356	J5J250143-1	HNH161AF	9HNH1610	5299626
	S06-010	B1F1C5	J5J250145-1	HNH181AA	9HNH1810	5299563
		B1F1C5	J5J250145-1	HNH181AC	9HNH1810	5334372
		B1F1C5	J5J250145-1	HNH181AD	9HNH1810	5299573
		B1F1C5	J5J250145-1	HNH181AE	9HNH1810	5299576
		B1F1C4	J5J250145-2	HNH2C1AA	9HNH2C10	5299563
		B1F1C4	J5J250145-2	HNH2C1AC	9HNH2C10	5334372
		B1F1C4	J5J250145-2	HNH2C1AD	9HNH2C10	5299573
		B1F1C4	J5J250145-2	HNH2C1AE	9HNH2C10	5299576

Comments:

Certificate of Analysis

Pacific Northwest National Laboratories
Sigma V Building
Richland, WA 99352

December 21, 2005

Attention: Dot Stewart

SAF Number	:	A06-010, I06-001, S06-010
Date SDG Closed	:	October 25, 2005
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W04799
Data Deliverable	:	45-Day / Summary

CASE NARRATIVE

I. Introduction

Between October 19, 2005 and October 24, 2005, twenty water samples were received at STL Richland (STLR) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Pacific Northwest National Laboratories (PGW) specific IDs:

<u>PGW ID#</u>	<u>STLR ID#</u>	<u>MATRIX</u>	<u>DATE OF RECEIPT</u>
B1DYR6	HM6AF	WATER	10/19/05
B1DYR7	HM6AQ	WATER	10/19/05
B1DYT6	HM6AX	WATER	10/19/05
B1DYV1	HM6CN	WATER	10/19/05
B1DYW0	HM6CR	WATER	10/19/05
B1DYV3	HM6CV	WATER	10/19/05
B1F1F8	HM935	WATER	10/20/05
B1F1F2	HM93M	WATER	10/20/05
B1F1F5	HM931	WATER	10/20/05
B1F1D6	HM936	WATER	10/20/05
B1DYT4	HNE5H	WATER	10/21/05
B1F1B5	HNE53	WATER	10/21/05
B1F193	HNE57	WATER	10/21/05

B1F392	HNE6F	WATER	10/21/05
B1DYT7	HNH1P	WATER	10/24/05
B1DYT8	HNH1V	WATER	10/24/05
B1DYT0	HNH1W	WATER	10/24/05
B1F356	HNH16	WATER	10/24/05
B1F1C5	HNH18	WATER	10/24/05
B1F1C4	HNH2C	WATER	10/24/05

II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analyses were:

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014

Gross Beta by method RICH-RC-5014

Strontium-90 by method RICH-RC-5006

Gamma Spectroscopy

Gamma Spec by method RICH-RC-5017

Iodine-129 (LL) by method RICH-RC-5025

Liquid Scintillation Counting

Carbon-14 by method RICH-RC-5022

Technetium-99 by TEVA method RICH-RC-5065

Tritium by method RICH-RC-5007

Laser Induced Phosphorimetry

Total Uranium by method RICH-RC-5058

Chemical Analysis

Total Coliform by method 9223

IV. Quality Control

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

V. Comments

Gas Proportional Counting

Gross Alpha by method RICH-RC-5014:

The LCS, batch blank, samples and sample duplicate (B1F356) results are within contractual requirements.

Gross Beta by method RICH-RC-5014:

The achieved MDA for sample B1DYR6 is greater than the CRDL due to sample matrix effects; reduced volume was analyzed based on an elevated screen results. The detected activity exceeds the achieved MDA. The LCS, batch blank, samples and sample duplicate (B1F1C4) results are within contractual requirements.

Strontium-90 by method RICH-RC-5006

The LCS, batch blank, samples and sample duplicate (B1F356) results are within contractual requirements.

Gamma Spectroscopy

Gamma Spec by method RICH-RC-5017:

The LCS, batch blank, samples and sample duplicate (B1F392) results are within contractual requirements.

Iodine-129 (LL) by method RICH-RC-5025

The LCS, batch blank, samples and sample duplicate (B1F1D6) results are within contractual requirements.

Liquid Scintillation Counting

Carbon-14 by method RICH-RC-5022

The LCS, batch blank, samples and sample duplicate (B1F193) results are within contractual requirements.

Technetium-99 by TEVA method RICH-RC-5065:

The LCS, batch blank, samples, sample duplicate (B1DYV1), and sample matrix spike (B1DYW0) results are within contractual requirements.

Tritium by method RICH-RC-5007:

The LCS, batch blank, samples and sample duplicate (B1DYT7) results are within contractual requirements.

Total Uranium

Total Uranium by method RICH-RC-5058:

The batch was recounted due to an instrument calibration issue. The LCS, batch blank, samples, sample duplicate (B1DYT7), and sample matrix spike (B1DYT4) results are within contractual requirements.

Pacific Northwest National Laboratories
December 21, 2005

Chemical Analysis

Total Coliform by method 9223

To achieve the holding time for coliforms, the samples were analyzed in two analytical batches as the samples were received.

Batch 5299632: The LCS, batch blank, samples and sample duplicate (B1F1D6) results are within contractual requirements.

Batch 5334372: The LCS, batch blank, samples and sample duplicate (B1F1C4) results are within contractual requirements.

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the following signature.

Reviewed and approved:


Hans Carman
for Project Manager

Drinking Water Method Cross References

DRINKING WATER ASTM METHOD CROSS REFERENCES		
Referenced Method	Isotope(s)	STL Richland's SOP number
EPA 901.1	Cs-134, I-131	RICH-RC-5017
EPA 900.0	Alpha & Beta	RICH-RC-5014
EPA 903.1	Ra-226	RICH-RC-5005
EPA 904.0	Ra-228	RICH-RC-5005
EPA 905.0	Sr89/90	RICH-RC-5006
ASTM D2460	Total Radium	RICH-RC-5027
Standard Method 7500-U-C & ASTM D5174	Uranium	RICH-RC-5058
EPA 906.0	Tritium	RICH-RC-5007
NOTE:		
The Gross Alpha LCS is prepared with Am-241 (unless otherwise specified in the case narrative)		
The Gross Beta LCS is prepared with Sr/Y-90 (unless otherwise specified in the case narrative)		

Uncertainty Estimation

STL Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, $R = \text{constants} * f(x,y,z,...)$. The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/\sqrt{n}), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or STL Richland.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) <i>u_c - Combined Uncertainty.</i>	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, <i>u_c the combined uncertainty</i> . The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or STL Richland "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. $Lc = (1.645 * \text{Sqrt}(2 * (\text{BkgrndCnt} / \text{BkgrndCntMin}) / \text{SCntMin})) * (\text{ConvFct} / (\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol})) * \text{IngrFct}$. For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. $MDC = (4.65 * \text{Sqrt}((\text{BkgrndCnt} / \text{BkgrndCntMin}) / \text{SCntMin}) + 2.71 / \text{SCntMin}) * (\text{ConvFct} / (\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol})) * \text{IngrFct}$. For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the Work Order Number.
RER	The equation Replicate Error Ratio = $(S - D) / [\text{sqrt}(\text{TPUs}^2 + \text{TPUd}^2)]$ as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by STL Richland upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

12/22/2005 7:57:07 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

Version: 05

Rpt Nbr: 30860

File Name: h:\Reportdb\edd\Fead\I\Rad\W04799.Edd, h:\Reportdb\edd\Fead\I\Rad\30860.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HM6AF10	B1DYZ6		MW6-SBB-A1	A06-010	W04799					10/19/2005 10:17				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299563	H-3	10028-17-8	2.12E+02	pCi/L	1.5E+02	1.7E+02	U	3.54E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/10/200 16:48	I
5299573	ALPHA	12587-46-1	1.95E+00	pCi/L	1.4E+00	1.5E+00	U	2.35E+00	100.0	9310_ALPHABETA	8.11E-02	L	12/04/200 12:34	I
5299576	BETA	12587-47-2	3.61E+01	pCi/L	3.7E+00	6.0E+00		4.42E+00	100.0	9310_ALPHABETA	8.94E-02	L	12/04/200 10:39	I
5299629	I-129L	15046-84-1	1.54E+00	pCi/L	3.6E-01	3.6E-01	U	6.43E-01	94.3	I129LL_SEP_LEPS	3.9106E+00	L	12/02/200 10:46	I
5299559	TC-99	14133-76-7	8.72E+01	pCi/L	6.2E+00	1.0E+01		1.01E+01	100.0	TC99_ETVDSK_LS	1.242E-01	L	12/16/200 21:33	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HM6AF20	B1DYZ6		MW6-SBB-A1	A06-010	W04799					10/19/2005 10:17				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299557	Uranium	7440-61-1	2.71E+00	ug/L	2.8E-01	2.8E-01		8.96E-02		UTOT_KPA	2.34E-02	ML	12/08/200 15:49	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HM6AQ10	B1DYZ7		MW6-SBB-A1	A06-010	W04799					10/19/2005 08:15				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299563	H-3	10028-17-8	-1.39E+02	pCi/L	1.4E+02	1.6E+02	U	3.57E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/10/200 18:11	I
5299573	ALPHA	12587-46-1	6.69E-02	pCi/L	1.8E-01	1.8E-01	U	3.82E-01	100.0	9310_ALPHABETA	2.012E-01	L	12/04/200 12:34	I
5299576	BETA	12587-47-2	1.32E+00	pCi/L	9.6E-01	9.7E-01	U	1.81E+00	100.0	9310_ALPHABETA	1.994E-01	L	12/04/200 10:39	I
5299629	I-129L	15046-84-1	-6.87E-02	pCi/L	1.3E-01	1.3E-01	U	2.20E-01	96.5	I129LL_SEP_LEPS	3.94E+00	L	12/02/200 10:47	I
5299559	TC-99	14133-76-7	7.02E+00	pCi/L	3.8E+00	5.1E+00	U	9.44E+00	100.0	TC99_ETVDSK_LS	1.239E-01	L	12/16/200 22:35	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HM6AQ20	B1DYZ7		MW6-SBB-A1	A06-010	W04799					10/19/2005 08:15				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299557	Uranium	7440-61-1	0.00E+00	ug/L	0.0E+00	0.0E+00	U	2.10E-01		UTOT_KPA	2.45E-02	ML	12/08/200 15:54	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HM6AX10	B1DYZ6		MW6-SBB-A1	A06-010	W04799					10/19/2005 11:55				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299563	H-3	10028-17-8	7.87E+02	pCi/L	1.7E+02	2.0E+02		3.56E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/10/200 19:34	I
5299573	ALPHA	12587-46-1	1.83E+00	pCi/L	9.0E-01	9.7E-01		1.12E+00	100.0	9310_ALPHABETA	1.034E-01	L	12/04/200 12:34	I

STL Richland

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

1

rptFeadRadSummaryEdd v3.48

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

12/22/2005 7:57:07 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 30860 File Name: h:\Reportdb\edd\Fead\I\Rad\W04799.Edd, h:\Reportdb\edd\Fead\I\Rad\30860.Edd

5299576	BETA	12587-47-2	8.76E+00	pCi/L	1.5E+00	2.0E+00		2.27E+00	100.0	9310_ALPHABETA	1.672E-01	L	12/04/200	10:39	I
5299629	I-129L	15046-84-1	2.29E+00	pCi/L	4.6E-01	4.6E-01		2.91E-01	96.2	I129LL_SEP_LEPS	3.9211E+00	L	12/02/200	12:32	I
5299559	TC-99	14133-76-7	-1.19E+00	pCi/L	3.3E+00	4.4E+00	U	8.03E+00	100.0	TC99_ETVDSK_LS	1.249E-01	L	12/16/200	23:37	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:					
9HM6AX20	B1DYT6		MW6-SBB-A1	A06-010	W04799					10/19/2005 11:55					
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
5299557	Uranium	7440-61-1	1.64E+00	ug/L	1.7E-01	1.7E-01		8.25E-02		UTOT_KPA	2.54E-02	ML	12/08/200 16:00	I	

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:					
9HM6CN10	B1DYV1		MW6-SBB-A1	A06-010	W04799					10/19/2005 12:56					
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
5299563	H-3	10028-17-8	5.07E+02	pCi/L	1.6E+02	1.8E+02		3.52E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/10/200 20:56	I	
5299573	ALPHA	12587-46-1	1.37E+00	pCi/L	6.4E-01	7.0E-01		8.60E-01	100.0	9310_ALPHABETA	1.795E-01	L	12/04/200 12:34	I	
5299576	BETA	12587-47-2	7.90E+00	pCi/L	1.4E+00	1.9E+00		2.01E+00	100.0	9310_ALPHABETA	1.975E-01	L	12/04/200 10:39	I	
5299629	I-129L	15046-84-1	5.41E-01	pCi/L	2.4E-01	2.4E-01	U	4.20E-01	95.7	I129LL_SEP_LEPS	3.8306E+00	L	12/02/200 12:33	I	
5299559	TC-99	14133-76-7	2.15E+00	pCi/L	3.5E+00	4.7E+00	U	8.64E+00	100.0	TC99_ETVDSK_LS	1.266E-01	L	12/17/200 00:40	I	

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:					
9HM6CN20	B1DYV1		MW6-SBB-A1	A06-010	W04799					10/19/2005 12:56					
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
5299557	Uranium	7440-61-1	2.73E+00	ug/L	2.8E-01	2.8E-01		8.96E-02		UTOT_KPA	2.34E-02	ML	12/08/200 16:03	I	

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:					
9HM6CR10	B1DYW0		MW6-SBB-A1	A06-010	W04799					10/19/2005 11:49					
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act	
5299563	H-3	10028-17-8	4.30E+02	pCi/L	1.6E+02	1.8E+02		3.51E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/10/200 22:19	I	
5299573	ALPHA	12587-46-1	2.39E+00	pCi/L	8.9E-01	1.0E+00		7.49E-01	100.0	9310_ALPHABETA	1.578E-01	L	12/04/200 12:34	I	
5299576	BETA	12587-47-2	1.17E+01	pCi/L	1.5E+00	2.2E+00		2.07E+00	100.0	9310_ALPHABETA	1.944E-01	L	12/04/200 10:39	I	
5299629	I-129L	15046-84-1	3.71E-02	pCi/L	1.6E-01	1.6E-01	U	2.98E-01	96.8	I129LL_SEP_LEPS	3.852E+00	L	12/02/200 14:16	I	
5299559	TC-99	14133-76-7	1.42E+01	pCi/L	4.0E+00	5.5E+00		9.11E+00	100.0	TC99_ETVDSK_LS	1.256E-01	L	12/17/200 02:45	I	

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:					
9HM6CR20	B1DYW0		MW6-SBB-A1	A06-010	W04799					10/19/2005 11:49					

STL Richland
 rptFeadRadSummaryEdd v3.48

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
 J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
 B Qual- Analyte was found in the associated laboratory blank above the MDC.

12/22/2005 7:57:07 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

Version: 05

Rpt Nbr: 30860

File Name: h:\Reportdb\edd\FeadIV\Rad\W04799.Edd, h:\Reportdb\edd\FeadIV\Rad\30860.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299557	Uranium	7440-61-1	3.48E+00	ug/L	3.6E-01	3.6E-01		8.66E-02		UTOT_KPA	2.42E-02	ML	12/08/200 16:06	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HM6CV10	B1DYV3		MW6-SBB-A1	A06-010	W04799					10/19/2005 10:49

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299563	H-3	10028-17-8	-2.73E+01	pCi/L	1.5E+02	1.6E+02	U	3.58E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/10/200 23:41	I
5299573	ALPHA	12587-46-1	1.92E+00	pCi/L	9.1E-01	9.9E-01		1.21E+00	100.0	9310_ALPHABETA	1.416E-01	L	12/05/200 07:49	I
5299576	BETA	12587-47-2	8.38E+00	pCi/L	1.3E+00	1.9E+00		1.83E+00	100.0	9310_ALPHABETA	1.923E-01	L	12/04/200 10:39	I
5299629	I-129L	15046-84-1	1.28E-01	pCi/L	1.3E-01	1.3E-01	U	2.70E-01	97.0	I129LL_SEP_LEPS	3.92E+00	L	12/02/200 14:17	I
5299559	TC-99	14133-76-7	-3.08E-02	pCi/L	3.2E+00	4.3E+00	U	7.89E+00	100.0	TC99_ETVDSK_LS	1.321E-01	L	12/17/200 04:49	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HM6CV20	B1DYV3		MW6-SBB-A1	A06-010	W04799					10/19/2005 10:49

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299557	Uranium	7440-61-1	2.31E+00	ug/L	2.4E-01	2.4E-01		8.06E-02		UTOT_KPA	2.60E-02	ML	12/08/200 16:10	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HM93110	B1F1F5		MW6-SBB-A1	S06-010	W04799					10/20/2005 10:46

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299563	H-3	10028-17-8	2.98E+03	pCi/L	2.3E+02	2.9E+02		3.50E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/11/200 02:26	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HM93510	B1F1F8		MW6-SBB-A1	S06-010	W04799					10/20/2005 11:11

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299563	H-3	10028-17-8	3.24E+03	pCi/L	2.4E+02	3.0E+02		3.53E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/11/200 09:20	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9HM93610	B1F1D6		MW6-SBB-A1	S06-010	W04799					10/20/2005 12:31

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299563	H-3	10028-17-8	4.43E+04	pCi/L	7.2E+02	2.0E+03		3.54E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/11/200 10:42	I
5299573	ALPHA	12587-46-1	2.73E+00	pCi/L	8.6E-01	1.0E+00		7.47E-01	100.0	9310_ALPHABETA	1.97E-01	L	12/05/200 07:49	I
5299576	BETA	12587-47-2	2.14E+01	pCi/L	1.8E+00	3.2E+00		1.97E+00	100.0	9310_ALPHABETA	1.999E-01	L	12/04/200 10:39	I
5299629	I-129L	15046-84-1	6.34E-02	pCi/L	1.6E-01	1.6E-01	U	3.07E-01	96.5	I129LL_SEP_LEPS	3.9743E+00	L	12/02/200 16:11	I

STL Richland

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

3

rptFeadRadSummaryEdd v3.48

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

12/22/2005 7:57:07 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 30860 File Name: h:\Reportdb\edd\FeadIV\Rad\W04799.Edd, h:\Reportdb\edd\FeadIV\Rad\30860.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HM93M10	B1F1F2		MW6-SBB-A1	S06-010	W04799					10/20/2005 10:11				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299563	H-3	10028-17-8	9.79E+03	pCi/L	3.6E+02	5.7E+02		3.51E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/11/200 01:04	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HNE5310	B1F1B5		MW6-SBB-A1	S06-010	W04799					10/21/2005 10:55				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299559	TC-99	14133-76-7	1.30E+02	pCi/L	6.7E+00	1.2E+01		9.08E+00	100.0	TC99_ETVDSK_LS	1.259E-01	L	12/17/200 06:54	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HNE5710	B1F193		MW6-SBB-A1	S06-010	W04799					10/21/2005 10:00				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299563	H-3	10028-17-8	3.48E+02	pCi/L	1.6E+02	1.8E+02	U	3.52E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/11/200 13:27	I
5299576	BETA	12587-47-2	7.30E+00	pCi/L	1.3E+00	1.6E+00		1.95E+00	100.0	9310_ALPHABETA	1.973E-01	L	12/04/200 10:40	I
5299630	C-14	14762-75-5	1.49E+02	pCi/L	7.1E+00	1.1E+01		8.66E+00	100.0	C14_LSC	2.00E-01	L	12/08/200 02:39	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HNE5H10	B1DYT4		MW6-SBB-A1	A06-010	W04799					10/21/2005 12:18				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299563	H-3	10028-17-8	1.17E+03	pCi/L	1.9E+02	2.1E+02		3.53E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/11/200 12:05	I
5299573	ALPHA	12587-46-1	1.88E+00	pCi/L	8.3E-01	9.1E-01		9.82E-01	100.0	9310_ALPHABETA	1.416E-01	L	12/05/200 07:49	I
5299576	BETA	12587-47-2	8.81E+00	pCi/L	1.4E+00	1.8E+00		2.03E+00	100.0	9310_ALPHABETA	1.81E-01	L	12/04/200 10:39	I
5299629	I-129L	15046-84-1	1.01E+00	pCi/L	3.3E-01	3.3E-01	U	5.27E-01	98.6	I129LL_SEP_LEPS	3.894E+00	L	12/02/200 18:22	I
5299559	TC-99	14133-76-7	1.98E+00	pCi/L	3.4E+00	4.7E+00	U	8.22E+00	100.0	TC99_ETVDSK_LS	1.237E-01	L	12/17/200 05:52	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HNE5H20	B1DYT4		MW6-SBB-A1	A06-010	W04799					10/21/2005 12:18				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299557	Uranium	7440-61-1	2.49E+00	ug/L	2.6E-01	2.6E-01		8.32E-02		UTOT_KPA	2.52E-02	ML	12/08/200 16:21	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HNE6F10	B1F392		MW6-SBB-A1	I06-001	W04799					10/21/2005 10:55				

12/22/2005 7:57:07 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

Version: 05

Rpt Nbr: 30860

File Name: h:\Reportdb\edd\Fead\I\Rad\W04799.Edd, h:\Reportdb\edd\Fead\I\Rad\30860.Edd

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299563	H-3	10028-17-8	9.56E+03	pCi/L	3.6E+02	5.6E+02		3.50E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/11/200 14:50	I
5299573	ALPHA	12587-46-1	1.34E+00	pCi/L	6.7E-01	7.2E-01		9.54E-01	100.0	9310_ALPHABETA	1.688E-01	L	12/05/200 07:49	I
5299576	BETA	12587-47-2	3.80E+01	pCi/L	2.3E+00	5.3E+00		2.12E+00	100.0	9310_ALPHABETA	1.934E-01	L	12/04/200 10:40	I
5299583	BE-7	13966-02-4	-1.52E+01	pCi/L	1.9E+01	1.9E+01	U	3.08E+01		GAMMA_GS	2.5371E+00	L	11/28/200 05:33	I
5299583	CO-60	10198-40-0	-8.14E-01	pCi/L	1.9E+00	1.9E+00	U	3.43E+00		GAMMA_GS	2.5371E+00	L	11/28/200 05:33	I
5299583	CS-134	13967-70-9	7.62E-03	pCi/L	2.0E+00	2.0E+00	U	3.76E+00		GAMMA_GS	2.5371E+00	L	11/28/200 05:33	I
5299583	CS-137	10045-97-3	-1.70E+00	pCi/L	1.7E+00	1.7E+00	U	2.71E+00		GAMMA_GS	2.5371E+00	L	11/28/200 05:33	I
5299583	EU-152	14683-23-9	-2.34E-01	pCi/L	4.3E+00	4.3E+00	U	7.81E+00		GAMMA_GS	2.5371E+00	L	11/28/200 05:33	I
5299583	EU-154	15585-10-1	-7.72E-01	pCi/L	5.1E+00	5.1E+00	U	9.75E+00		GAMMA_GS	2.5371E+00	L	11/28/200 05:33	I
5299583	EU-155	14391-16-3	1.53E+00	pCi/L	3.7E+00	3.7E+00	U	6.93E+00		GAMMA_GS	2.5371E+00	L	11/28/200 05:33	I
5299583	K-40	13966-00-2	-4.03E+01	pCi/L	4.0E+01	4.0E+01	U	8.47E+01		GAMMA_GS	2.5371E+00	L	11/28/200 05:33	I
5299583	RU-106	13967-48-1	1.39E+00	pCi/L	1.4E+01	1.4E+01	U	2.77E+01		GAMMA_GS	2.5371E+00	L	11/28/200 05:33	I
5299583	SB-125	14234-35-6	9.53E-01	pCi/L	3.7E+00	3.7E+00	U	7.08E+00		GAMMA_GS	2.5371E+00	L	11/28/200 05:33	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HNNH1610	B1F356		MW6-SBB-A1	I06-001	W04799					10/24/2005 11:17				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299563	H-3	10028-17-8	3.68E+02	pCi/L	1.6E+02	1.8E+02		3.66E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/11/200 21:43	I
5299573	ALPHA	12587-46-1	8.41E-01	pCi/L	5.3E-01	5.6E-01	U	8.44E-01	100.0	9310_ALPHABETA	1.981E-01	L	12/05/200 07:49	I
5299576	BETA	12587-47-2	7.29E+01	pCi/L	3.0E+00	9.9E+00		1.94E+00	100.0	9310_ALPHABETA	1.986E-01	L	12/05/200 07:50	I
5299583	BE-7	13966-02-4	6.92E+00	pCi/L	1.7E+01	1.7E+01	U	3.40E+01		GAMMA_GS	2.5086E+00	L	11/28/200 05:33	I
5299583	CO-60	10198-40-0	-1.11E+00	pCi/L	1.6E+00	1.6E+00	U	2.76E+00		GAMMA_GS	2.5086E+00	L	11/28/200 05:33	I
5299583	CS-134	13967-70-9	1.90E-01	pCi/L	2.0E+00	2.0E+00	U	3.82E+00		GAMMA_GS	2.5086E+00	L	11/28/200 05:33	I
5299583	CS-137	10045-97-3	-5.50E-01	pCi/L	1.6E+00	1.6E+00	U	2.88E+00		GAMMA_GS	2.5086E+00	L	11/28/200 05:33	I
5299583	EU-152	14683-23-9	1.60E+00	pCi/L	4.3E+00	4.3E+00	U	8.02E+00		GAMMA_GS	2.5086E+00	L	11/28/200 05:33	I
5299583	EU-154	15585-10-1	2.88E+00	pCi/L	6.0E+00	6.0E+00	U	1.25E+01		GAMMA_GS	2.5086E+00	L	11/28/200 05:33	I
5299583	EU-155	14391-16-3	3.29E-01	pCi/L	3.1E+00	3.1E+00	U	5.49E+00		GAMMA_GS	2.5086E+00	L	11/28/200 05:33	I
5299583	K-40	13966-00-2	-4.73E+01	pCi/L	4.2E+01	4.2E+01	U	8.97E+01		GAMMA_GS	2.5086E+00	L	11/28/200 05:33	I
5299583	RU-106	13967-48-1	-1.13E+01	pCi/L	1.5E+01	1.5E+01	U	2.44E+01		GAMMA_GS	2.5086E+00	L	11/28/200 05:33	I
5299583	SB-125	14234-35-6	-7.95E-01	pCi/L	4.1E+00	4.1E+00	U	7.30E+00		GAMMA_GS	2.5086E+00	L	11/28/200 05:33	I
5299626	SR-90	10098-97-2	3.78E+01	pCi/L	1.1E+00	5.7E+00		5.15E-01	80.3	SRISO SEP PRE	1.0054E+00	L	11/20/200 13:33	I

12/22/2005 7:57:07 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 30860 File Name: h:\Reportdb\edd\Feadi\Rad\W04799.Edd, h:\Reportdb\edd\Feadi\Rad\30860.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HNNH1810	B1F1C5		MW6-SBB-A1	S06-010	W04799					10/24/2005 08:00				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299563	H-3	10028-17-8	-5.40E+01	pCi/L	1.5E+02	1.6E+02	U	3.60E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/11/200 23:06	I
5299573	ALPHA	12587-46-1	7.94E-02	pCi/L	2.4E-01	2.4E-01	U	5.14E-01	100.0	9310_ALPHABETA	1.953E-01	L	12/05/200 07:49	I
5299576	BETA	12587-47-2	5.03E-01	pCi/L	9.5E-01	9.5E-01	U	1.88E+00	100.0	9310_ALPHABETA	1.992E-01	L	12/05/200 07:50	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HNNH1P10	B1DYT7		MW6-SBB-A1	A06-010	W04799					10/24/2005 10:27				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299563	H-3	10028-17-8	1.15E+02	pCi/L	1.5E+02	1.7E+02	U	3.55E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/11/200 16:12	I
5299573	ALPHA	12587-46-1	1.42E+00	pCi/L	7.0E-01	7.5E-01		8.72E-01	100.0	9310_ALPHABETA	1.525E-01	L	12/05/200 07:49	I
5299576	BETA	12587-47-2	6.55E+00	pCi/L	1.2E+00	1.7E+00		1.87E+00	100.0	9310_ALPHABETA	2.037E-01	L	12/04/200 10:40	I
5299629	I-129L	15046-84-1	3.87E-01	pCi/L	1.7E-01	1.7E-01	U	3.61E-01	96.8	I129LL_SEP_LEPS	3.8978E+00	L	12/02/200 18:22	I
5299559	TC-99	14133-76-7	7.48E+00	pCi/L	3.8E+00	5.1E+00	U	9.40E+00	100.0	TC99_ETVDSK_LS	1.274E-01	L	12/17/200 07:57	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HNNH1P20	B1DYT7		MW6-SBB-A1	A06-010	W04799					10/24/2005 10:27				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299557	Uranium	7440-61-1	2.28E+00	ug/L	2.3E-01	2.3E-01		7.46E-02		UTOT_KPA	2.81E-02	ML	12/08/200 16:28	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HNNH1V10	B1DYT8		MW6-SBB-A1	A06-010	W04799					10/24/2005 08:00				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299563	H-3	10028-17-8	-6.72E+01	pCi/L	1.5E+02	1.6E+02	U	3.66E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/11/200 18:58	I
5299573	ALPHA	12587-46-1	-2.51E-01	pCi/L	2.5E-01	2.5E-01	U	6.52E-01	100.0	9310_ALPHABETA	1.993E-01	L	12/05/200 07:49	I
5299576	BETA	12587-47-2	1.72E-01	pCi/L	1.0E+00	1.0E+00	U	2.01E+00	100.0	9310_ALPHABETA	2.014E-01	L	12/04/200 10:40	I
5299629	I-129L	15046-84-1	3.31E-02	pCi/L	1.5E-01	1.5E-01	U	2.84E-01	96.5	I129LL_SEP_LEPS	3.9195E+00	L	12/02/200 20:05	I
5299559	TC-99	14133-76-7	1.31E+01	pCi/L	4.2E+00	5.6E+00		1.02E+01	100.0	TC99_ETVDSK_LS	1.248E-01	L	12/17/200 10:01	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HNNH1V20	B1DYT8		MW6-SBB-A1	A06-010	W04799					10/24/2005 08:00				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299557	Uranium	7440-61-1	0.00E+00	ug/L	0.0E+00	0.0E+00	U	2.10E-01		UTOT_KPA	2.30E-02	ML	12/08/200 16:34	I

STL Richland

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

6

rptFeadRadSummaryEdd v3.48

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

12/22/2005 7:57:07 AM

STL Richland Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

Version: 05

Rpt Nbr: 30860

File Name: h:\Reportdb\eddd\Fead\I\Rad\W04799.Edd, h:\Reportdb\eddd\Fead\I\Rad\30860.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HNNH1W10	B1DYT0		MW6-SBB-A1	A06-010	W04799					10/24/2005 12:04				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299563	H-3	10028-17-8	9.70E+02	pCi/L	1.8E+02	2.0E+02		3.51E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/11/200 20:20	I
5299573	ALPHA	12587-46-1	1.99E+00	pCi/L	8.3E-01	9.2E-01		1.14E+00	100.0	9310_ALPHABETA	1.70E-01	L	12/05/200 07:49	I
5299576	BETA	12587-47-2	7.71E+00	pCi/L	1.5E+00	1.8E+00		2.28E+00	100.0	9310_ALPHABETA	1.969E-01	L	12/05/200 07:50	I
5299629	I-129L	15046-84-1	1.07E+00	pCi/L	3.3E-01	3.3E-01	U	5.53E-01	95.7	I129LL_SEP_LEPS	3.94E+00	L	12/02/200 20:06	I
5299559	TC-99	14133-76-7	1.26E+01	pCi/L	4.1E+00	5.5E+00		9.86E+00	100.0	TC99_ETVDSK_LS	1.267E-01	L	12/17/200 11:04	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HNNH1W20	B1DYT0		MW6-SBB-A1	A06-010	W04799					10/24/2005 12:04				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299557	Uranium	7440-61-1	2.52E+00	ug/L	2.6E-01	2.6E-01		8.38E-02		UTOT_KPA	2.50E-02	ML	12/08/200 16:42	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9HNNH2C10	B1F1C4		MW6-SBB-A1	S06-010	W04799					10/24/2005 13:51				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
5299563	H-3	10028-17-8	2.77E+04	pCi/L	5.8E+02	1.3E+03		3.55E+02	100.0	906.0_H3_LSC	5.00E-03	L	12/12/200 00:28	I
5299573	ALPHA	12587-46-1	1.79E+00	pCi/L	9.1E-01	1.1E+00		1.24E+00	100.0	9310_ALPHABETA	1.436E-01	L	12/05/200 07:49	I
5299576	BETA	12587-47-2	1.65E+01	pCi/L	1.7E+00	2.7E+00		2.06E+00	100.0	9310_ALPHABETA	1.892E-01	L	12/05/200 07:50	I

Thursday, December 22, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04799.Edd, h:\Reportdb\edd\FeadIV\Rad\30860.Edd

Lab Sample Id: HNM671AB

Sdg/Rept Nbr: W04799 30860

Collection Date: 10/24/2005 10:27

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 10/24/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ ML	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299557 BLK	Uranium 7440-61-1	0.00E+00	ug/L	0.0E+00 0.0E+00	U	2.10E-01			UTOT_KPA	2.55E-02	12/05/2005 08:36				D

Thursday, December 22, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\eddd\Fead\I\Rad\W04799.Edd, h:\Reportdb\eddd\Fead\I\Rad\30860.Edd

Lab Sample Id: HNM701AB

Sdg/Rept Nbr: W04799

30860

Collection Date: 10/24/2005 10:27

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 10/24/2005

SAF Nbr		Contract Nbr		Test User		Case Nbr		SAS Nbr		Suffix		Decant		Distilled Volume		File Id		FSuffix		RTyp	
		MW6-SBB-A19981																BS		H	
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ						
5299563	H-3	-6.74E+01	pCi/L	1.6E+02	U	3.60E+02	100.0		906.0_H3_LSC	5.00E-03	12/10/2005				D						
BLK	10028-17-8			1.4E+02						L	14:03										

Thursday, December 22, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\Fead\I\Rad\W04799.Edd, h:\Reportdb\ledd\Fead\I\Rad\30860.Edd

Lab Sample Id: HNM701DX

Sdg/Rept Nbr: W04799 30860

Collection Date: 10/24/2005 10:27

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 10/24/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BU	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299563 BLK	H-3 10028-17-8	-1.54E+02	pCi/L	1.5E+02 1.4E+02	U	3.53E+02	100.0		906.0_H3_LSC	5.00E-03 L	12/11/2005 05:12				D

Thursday, December 22, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W04799.Edd, h:\Reportdb\edd\Fead\I\Rad\30860.Edd

Lab Sample Id: HNM7J1AB

Sdg/Rept Nbr: W04799

30860

Collection Date: 10/19/2005 12:56

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 10/19/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BW	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299559	TC-99	7.39E+00	pCi/L	5.1E+00	U	9.57E+00	100.0		TC99_ETVDSK	1.282E-01	12/17/2005				D
BLK	14133-76-7			3.8E+00						L	12:06				

Thursday, December 22, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W04799.Edd, h:\Reportdb\edd\Fead\I\Rad\30860.Edd

Lab Sample Id: HNM9P1AB

Sdg/Rept Nbr: W04799 30860

Collection Date: 10/24/2005 11:17

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 10/24/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299573 BLK	ALPHA 12587-46-1	1.16E-01	pCi/L	2.6E-01 2.6E-01	U	5.39E-01	100.0		9310_ALPHAB	2.018E-01 L	12/05/2005 07:49				D

Thursday, December 22, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W04799.Edd, h:\Reportdb\edd\Fead\I\Rad\30860.Edd

Lab Sample Id: HNM9V1AB

Sdg/Rept Nbr: W04799 30860

Collection Date: 10/24/2005 13:51

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 10/24/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								CA	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299576	BETA	-1.70E-01	pCi/L	7.7E-01	U	1.60E+00	100.0		9310_ALPHAB	1.99E-01	12/05/2005				D
BLK	12587-47-2			7.7E-01						L	07:50				

Thursday, December 22, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\W04799.Edd, h:\Reportdb\edd\Fead\W04799.Edd, h:\Reportdb\edd\Fead\W04799.Edd, h:\Reportdb\edd\Fead\W04799.Edd

Lab Sample Id: HNNA1AB

Sdg/Rept Nbr: W04799 30860

Collection Date: 10/21/2005 10:55

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 10/21/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
MW6-SBB-A19981									CC	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299583 BLK	BE-7 13966-02-4	-4.35E-02	pCi/L	2.2E+01 2.2E+01	U	4.08E+01			GAMMA_GS	2.5226E+00 L	11/28/2005 05:34				D
5299583 BLK	CO-60 10198-40-0	-1.69E+00	pCi/L	1.9E+00 1.9E+00	U	2.97E+00			GAMMA_GS	2.5226E+00 L	11/28/2005 05:34				D
5299583 BLK	CS-134 13967-70-9	-1.33E+00	pCi/L	2.2E+00 2.2E+00	U	3.72E+00			GAMMA_GS	2.5226E+00 L	11/28/2005 05:34				D
5299583 BLK	CS-137 10045-97-3	1.64E+00	pCi/L	1.9E+00 1.9E+00	U	3.92E+00			GAMMA_GS	2.5226E+00 L	11/28/2005 05:34				D
5299583 BLK	EU-152 14683-23-9	2.13E+00	pCi/L	3.8E+00 3.8E+00	U	7.52E+00			GAMMA_GS	2.5226E+00 L	11/28/2005 05:34				D
5299583 BLK	EU-154 15585-10-1	8.48E-01	pCi/L	3.5E+00 3.5E+00	U	8.02E+00			GAMMA_GS	2.5226E+00 L	11/28/2005 05:34				D
5299583 BLK	EU-155 14391-16-3	1.34E+00	pCi/L	3.5E+00 3.5E+00	U	6.37E+00			GAMMA_GS	2.5226E+00 L	11/28/2005 05:34				D
5299583 BLK	K-40 13966-00-2	-6.42E+01	pCi/L	3.7E+01 3.7E+01	U	7.64E+01			GAMMA_GS	2.5226E+00 L	11/28/2005 05:34				D
5299583 BLK	RU-106 13967-48-1	-8.16E+00	pCi/L	1.3E+01 1.3E+01	U	2.25E+01			GAMMA_GS	2.5226E+00 L	11/28/2005 05:34				D
5299583 BLK	SB-125 14234-35-6	-1.12E+00	pCi/L	4.5E+00 4.5E+00	U	8.03E+00			GAMMA_GS	2.5226E+00 L	11/28/2005 05:34				D

Thursday, December 22, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W04799.Edd, h:\Reportdb\edd\Fead\I\Rad\30860.Edd

Lab Sample Id: HNNE51AB

Sdg/Rept Nbr: W04799

30860

Collection Date: 10/24/2005 11:17

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 10/24/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RType					
	MW6-SBB-A19981								CE	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299626	SR-90	4.76E-01	pCi/L	2.5E-01		4.23E-01	81.1		SRISO_SEP_P	1.0244E+00	11/20/2005				D
BLK	10098-97-2			2.5E-01						L	13:33				

Thursday, December 22, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadI\Rad\W04799.Edd, h:\Reportdb\edd\FeadI\Rad\30860.Edd

Lab Sample Id: HNNE71AB

Sdg/Rept Nbr: W04799 30860

Collection Date: 10/20/2005 12:31

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 10/20/2005

SAF Nbr		Contract Nbr		Test User		Case Nbr		SAS Nbr		Suffix		Decant		Distilled Volume		File Id		FSuffix		RTyp	
		MW6-SBB-A19981																CG		H	
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ						
5299629	I-129L	1.86E-01	pCi/L	1.5E-01	U	3.17E-01	96.8		I129LL_SEP_L	3.8701E+00	12/02/2005				D						
BLK	15046-84-1			1.5E-01						L	21:53										

Thursday, December 22, 2005

STL Richland QC Blank Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W04799.Edd, h:\Reportdb\edd\Fead\Rad\30860.Edd

Lab Sample Id: HNNE91AB

Sdg/Rept Nbr: W04799

30860

Collection Date: 10/21/2005 10:00

Client Id: NA

Matrix: WATER

WATER

Sample On Date: 10/10/2005 08:56

Moisture/Solids%*:

QC Type: BLK

Received Date: 10/21/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299630	C-14	2.56E+01	pCi/L	5.5E+00		8.66E+00	100.0		C14_LSC	2.00E-01	12/08/2005				
BLK	14762-75-5			4.4E+00						L	01:14				D

Thursday, December 22, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04799.Edd, h:\Reportdb\edd\FeadIV\Rad\30860.Edd

Lab Sample Id: HNM671CS

Sdg/Rept Nbr: W04799

30860

Collection Date: 10/24/2005 10:27

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 10/24/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BQ	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299557	Uranium	3.60E+01	ug/L	4.2E+00		8.52E-02		3.69E+01	UTOT_KPA	2.46E-02	12/08/2005			70	D
BS	7440-61-1			4.2E+00				97.6		ML	15:41			130	

Thursday, December 22, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04799.Edd, h:\Reportdb\edd\FeadIV\Rad\30860.Edd

Lab Sample Id: HNM671DS

Sdg/Rept Nbr: W04799

30860

Collection Date: 10/24/2005 10:27

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 10/24/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BR	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299557	Uranium	4.05E+00	ug/L	4.2E-01		9.23E-02		3.95E+00	UTOT_KPA	2.27E-02	12/08/2005			70	D
BS	7440-61-1			4.2E-01				102.6		ML	15:44			130	

Thursday, December 22, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04799.Edd, h:\Reportdb\edd\FeadIV\Rad\30860.Edd

Lab Sample Id: HNM701CS

Sdg/Rept Nbr: W04799 30860

Collection Date: 10/24/2005 10:27

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 10/24/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BT	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299563	H-3	2.68E+03	pCi/L	2.8E+02		3.60E+02	100.0	2.81E+03	906.0_H3_LSC	5.00E-03	12/10/2005			70	D
BS	10028-17-8			2.3E+02				95.3		L	15:26			130	

Thursday, December 22, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04799.Edd, h:\Reportdb\edd\FeadIV\Rad\30860.Edd

Lab Sample Id: HNM701EM

Sdg/Rept Nbr: W04799

30860

Collection Date: 10/24/2005 10:27

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 10/24/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BV	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299563	H-3	2.95E+03	pCi/L	2.9E+02		3.56E+02	100.0	2.81E+03	906.0_H3_LSC	5.00E-03	12/11/2005			70	D
BS	10028-17-8			2.4E+02				105.0		L	06:35			130	

Thursday, December 22, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04799.Edd, h:\Reportdb\edd\FeadIV\Rad\30860.Edd

Lab Sample Id: HNM7J1CS

Sdg/Rept Nbr: W04799

30860

Collection Date: 10/19/2005 12:56

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 10/19/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BX	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299559 BS	TC-99 14133-76-7	4.71E+02	pCi/L	3.2E+01 1.2E+01		9.42E+00	100.0	5.34E+02 88.2	TC99_ETVDSK	1.261E-01 L	12/17/2005 13:09			70 130	D

Thursday, December 22, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\I\Rad\W04799.Edd, h:\Reportdb\edd\Fead\I\Rad\30860.Edd

Lab Sample Id: HNM9P1CS

Sdg/Rept Nbr: W04799

30860

Collection Date: 10/24/2005 11:17

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 10/24/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BZ	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299573	ALPHA	2.32E+01	pCi/L	4.9E+00		4.63E-01	100.0	2.24E+01	9310__ALPHAB	2.03E-01	12/05/2005			70	D
BS	12587-46-1			1.6E+00				103.7		L	11:26			130	

Thursday, December 22, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04799.Edd, h:\Reportdb\edd\FeadIV\Rad\30860.Edd

Lab Sample Id: HNM9V1CS

Sdg/Rept Nbr: W04799

30860

Collection Date: 10/24/2005 13:51

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 10/24/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								CB	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299576	BETA	2.31E+01	pCi/L	3.4E+00		1.79E+00	100.0	2.35E+01	9310_ALPHAB	1.944E-01	12/05/2005			70	D
BS	12587-47-2			1.8E+00				98.2		L	07:50			130	

Thursday, December 22, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\Fead\W04799.Edd, h:\Reportdb\ledd\Fead\W04799.Edd, h:\Reportdb\ledd\Fead\W04799.Edd, h:\Reportdb\ledd\Fead\W04799.Edd

Lab Sample Id: HNNA1CS

Sdg/Rept Nbr: W04799 30860

Collection Date: 10/21/2005 10:55

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 10/21/2005

SAF Nbr		Contract Nbr		Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume		File Id		FSuffix	RTyp	
		MW6-SBB-A19981											CD	H	
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299583 BS	CO-60 10198-40-0	2.68E+01	pCi/L	6.2E+00 6.2E+00		3.96E+00		2.80E+01 95.9	GAMMA_GS	2.6555E+00 L	11/28/2005 05:34			70 130	D
5299583 BS	CS-137 10045-97-3	1.71E+01	pCi/L	4.4E+00 4.4E+00		3.63E+00		1.92E+01 89.4	GAMMA_GS	2.6555E+00 L	11/28/2005 05:34			70 130	D
5299583 BS	EU-152 14683-23-9	5.59E+01	pCi/L	1.2E+01 1.2E+01		8.67E+00		5.73E+01 97.6	GAMMA_GS	2.6555E+00 L	11/28/2005 05:34			70 130	D

Thursday, December 22, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04799.Edd, h:\Reportdb\edd\FeadIV\Rad\30860.Edd

Lab Sample Id: HNNE51CS

Sdg/Rept Nbr: W04799

30860

Collection Date: 10/24/2005 11:17

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 10/24/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								CF	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299626	SR-90	1.64E+01	pCi/L	2.5E+00		5.45E-01	75.6	1.47E+01	SRISO_SEP_P	9.225E-01	11/20/2005			70	D
BS	10098-97-2			8.1E-01				111.1		L	13:33			130	

Thursday, December 22, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04799.Edd, h:\Reportdb\edd\FeadIV\Rad\30860.Edd

Lab Sample Id: HNNE71CS

Sdg/Rept Nbr: W04799

30860

Collection Date: 10/20/2005 12:31

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 10/20/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								CH	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299629	I-129L	8.14E+00	pCi/L	1.1E+00		3.80E-01	100.8	9.96E+00	I129LL_SEP_L	3.8462E+00	12/02/2005			70	D
BS	15046-84-1			1.1E+00				81.8		L	21:54			130	

Thursday, December 22, 2005

STL Richland QC Control Sample Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04799.Edd, h:\Reportdb\edd\FeadIV\Rad\30860.Edd

Lab Sample Id: HNNE91CS

Sdg/Rept Nbr: W04799

30860

Collection Date: 10/21/2005 10:00

Client Id: NA

Matrix: WATER

WATER

Sample On Date: 10/10/2005 08:56

Moisture/Solids%*:

QC Type: BS

Received Date: 10/21/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								CJ	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299630	C-14	3.33E+01	pCi/L	5.8E+00		8.66E+00	100.0	4.49E+01	C14_LSC	2.00E-01	12/08/2005			70	D
BS	14762-75-5			4.6E+00				74.2		L	01:57			130	

Thursday, December 22, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04799.Edd, h:\Reportdb\edd\FeadIV\Rad\30860.Edd

Lab Sample Id: HM6CN1HR

Sdg/Rept Nbr: W04799

30860

Collection Date: 10/19/2005 12:56

Client Id: B1DYV1

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 10/19/2005

SAF Nbr		Contract Nbr		Test User		Case Nbr		SAS Nbr		Suffix		Decant		Distilled Volume		File Id		FSuffix		RTyp	
A06-010		MW6-SBB-A19981																BE		H	
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ						
5299559	TC-99	-1.60E+00	pCi/L	4.5E+00	U	8.51E+00	100.0		TC99_ETVDSK	1.251E-01	12/17/2005	1382.1	1.2		D						
DUP	14133-76-7	2.15E+00		3.3E+00						L	01:42	20.0	3								

Thursday, December 22, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04799.Edd, h:\Reportdb\edd\FeadIV\Rad\30860.Edd

Lab Sample Id: HM9361GR

Sdg/Rept Nbr: W04799

30860

Collection Date: 10/20/2005 12:31

Client Id: B1F1D6

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 10/20/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
S06-010	MW6-SBB-A19981								BG	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299629	I-129L	1.95E-01	pCi/L	1.5E-01	U	3.19E-01	96.5		I129LL_SEP_L	3.8366E+00	12/02/2005	101.9	1.2		D
DUP	15046-84-1	6.34E-02		1.5E-01						L	16:12	20.0	3		

Thursday, December 22, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04799.Edd, h:\Reportdb\edd\FeadIV\Rad\30860.Edd

Lab Sample Id: HNE571ER

Sdg/Rept Nbr: W04799

30860

Collection Date: 10/21/2005 10:00

Client Id: B1F193

Matrix: WATER

WATER

Sample On Date: 10/10/2005 08:56

Moisture/Solids%*:

QC Type: DUP

Received Date: 10/21/2005

SAF Nbr		Contract Nbr		Test User	Case Nbr		SAS Nbr	Suffix	Decant	Distilled Volume	File Id		FSuffix	RTyp	
S06-010		MW6-SBB-A19981											BH	H	
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299630	C-14	1.43E+02	pCi/L	1.0E+01		8.66E+00	100.0		C14_LSC	2.00E-01	12/08/2005	4.2	0.8		D
DUP	14762-75-5	1.49E+02		7.0E+00						L	03:21	20.0	3		

Thursday, December 22, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\eddd\Feadi\Rad\W04799.Edd, h:\Reportdb\eddd\Feadi\Rad\30860.Edd

Lab Sample Id: HNE6F1FR

Sdg/Rept Nbr: W04799 30860

Collection Date: 10/21/2005 10:55

Client Id: B1F392

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 10/21/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
I06-001	MW6-SBB-A19981								BJ	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299583	BE-7	-7.71E+00	pCi/L	2.1E+01	U	3.70E+01			GAMMA_GS	2.537E+00	11/28/2005	0.0	0.5		D
DUP	13966-02-4	-1.52E+01		2.1E+01						L	07:19	20.0	3		
5299583	CO-60	4.82E-01	pCi/L	2.1E+00	U	4.36E+00			GAMMA_GS	2.537E+00	11/28/2005	0.0	0.9		D
DUP	10198-40-0	-8.14E-01		2.1E+00						L	07:19	20.0	3		
5299583	CS-134	2.70E-01	pCi/L	1.8E+00	U	3.55E+00			GAMMA_GS	2.537E+00	11/28/2005	189.0	0.2		D
DUP	13967-70-9	7.62E-03		1.8E+00						L	07:19	20.0	3		
5299583	CS-137	-1.17E+00	pCi/L	1.8E+00	U	3.02E+00			GAMMA_GS	2.537E+00	11/28/2005	0.0	0.4		D
DUP	10045-97-3	-1.70E+00		1.8E+00						L	07:19	20.0	3		
5299583	EU-152	-1.94E+00	pCi/L	4.3E+00	U	7.51E+00			GAMMA_GS	2.537E+00	11/28/2005	0.0	0.6		D
DUP	14683-23-9	-2.34E-01		4.3E+00						L	07:19	20.0	3		
5299583	EU-154	-2.81E+00	pCi/L	5.5E+00	U	9.46E+00			GAMMA_GS	2.537E+00	11/28/2005	0.0	0.5		D
DUP	15585-10-1	-7.72E-01		5.5E+00						L	07:19	20.0	3		
5299583	EU-155	3.81E+00	pCi/L	3.2E+00	U	6.20E+00			GAMMA_GS	2.537E+00	11/28/2005	85.6	1.		D
DUP	14391-16-3	1.53E+00		3.2E+00						L	07:19	20.0	3		
5299583	K-40	-1.29E+01	pCi/L	3.2E+01	U	7.12E+01			GAMMA_GS	2.537E+00	11/28/2005	0.0	1.2		D
DUP	13966-00-2	-4.03E+01		3.2E+01						L	07:19	20.0	3		
5299583	RU-106	-8.80E+00	pCi/L	1.8E+01	U	3.10E+01			GAMMA_GS	2.537E+00	11/28/2005	0.0	0.8		D
DUP	13967-48-1	1.39E+00		1.8E+01						L	07:19	20.0	3		
5299583	SB-125	2.09E+00	pCi/L	4.1E+00	U	8.06E+00			GAMMA_GS	2.537E+00	11/28/2005	74.6	0.4		D
DUP	14234-35-6	9.53E-01		4.1E+00						L	07:19	20.0	3		

Thursday, December 22, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\VRad\W04799.Edd, h:\Reportdb\edd\Fead\VRad\30860.Edd

Lab Sample Id: HNH161GR

Sdg/Rept Nbr: W04799

30860

Collection Date: 10/24/2005 11:17

Client Id: B1F356

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 10/24/2005

SAF Nbr		Contract Nbr		Test User		Case Nbr		SAS Nbr		Suffix		Decant		Distilled Volume		File Id		FSuffix		RTyp	
I06-001		MW6-SBB-A19981																BK		H	
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ						
5299573	ALPHA	7.96E-01	pCi/L	4.9E-01		6.65E-01	100.0		9310_ALPHAB	2.043E-01	12/05/2005	5.5	0.1		D						
DUP	12587-46-1	8.41E-01		4.7E-01						L	07:49	20.0	3								

Thursday, December 22, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04799.Edd, h:\Reportdb\edd\FeadIV\Rad\30860.Edd

Lab Sample Id: HNH161HR

Sdg/Rept Nbr: W04799

30860

Collection Date: 10/24/2005 11:17

Client Id: B1F356

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 10/24/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
I06-001	MW6-SBB-A19981								BL	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299626	SR-90	3.67E+01	pCi/L	5.5E+00		4.65E-01	83.5		SRISO_SEP_P	9.862E-01	11/20/2005	3.0	0.3		D
DUP	10098-97-2	3.78E+01		1.1E+00						L	13:33	20.0	3		

Thursday, December 22, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04799.Edd, h:\Reportdb\edd\FeadIV\Rad\30860.Edd

Lab Sample Id: HNH1P1JR

Sdg/Rept Nbr: W04799 30860

Collection Date: 10/24/2005 10:27

Client Id: B1DYT7

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 10/24/2005

SAF Nbr		Contract Nbr		Test User		Case Nbr		SAS Nbr		Suffix		Decant		Distilled Volume		File Id		FSuffix		RTyp	
A06-010		MW6-SBB-A19981																BM		H	
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ						
5299563	H-3	1.76E+02	pCi/L	1.7E+02	U	3.56E+02	100.0		906.0_H3_LSC	5.00E-03	12/11/2005	42.1	0.5		D						
DUP	10028-17-8	1.15E+02		1.5E+02						L	17:35	20.0	3								

Thursday, December 22, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04799.Edd, h:\Reportdb\edd\FeadIV\Rad\30860.Edd

Lab Sample Id: HNH1P2HR

Sdg/Rept Nbr: W04799 30860

Collection Date: 10/24/2005 10:27

Client Id: B1DYT7

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 10/24/2005

SAF Nbr		Contract Nbr		Test User		Case Nbr		SAS Nbr		Suffix		Decant		Distilled Volume		File Id		FSuffix		RTyp	
A06-010		MW6-SBB-A19981																BN		H	
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ						
5299557	Uranium	2.78E+00	ug/L	2.8E-01		8.03E-02			UTOT_KPA	2.61E-02	12/08/2005	19.9	2.5		D						
DUP	7440-61-1	2.28E+00		2.8E-01						ML	16:31	20.0	3								

Thursday, December 22, 2005

STL Richland QC Duplicate Report

Lab Code: STLRL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W04799.Edd, h:\Reportdb\edd\FeadIV\Rad\30860.Edd

Lab Sample Id: HNH2C1FR

Sdg/Rept Nbr: W04799

30860

Collection Date: 10/24/2005 13:51

Client Id: B1F1C4

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 10/24/2005

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
S06-010	MW6-SBB-A19981								BO	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
5299576	BETA	1.84E+01	pCi/L	2.9E+00		2.22E+00	100.0		9310_ALPHAB	1.868E-01	12/05/2005	10.6	0.9		D
DUP	12587-47-2	1.65E+01		1.8E+00						L	07:50	20.0	3		

RQC050

Severn Trent Laboratories, Inc.
WET CHEM BATCHSHEETRun Date: 11/30/05
Time: 12:39:37

STL Richland

PRODUCTION FIGURES - WET CHEM

TOTAL NUMBER	SAMPLE NUMBER	QC	RE-RUN MATRIX	RE-RUN OTHER	MISC NUMBER	TOTAL HOURS	EXPANDED DELIVERABLE
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METHOD: IZ COLIFORM BY METHOD 9223

QC BATCH #: 5299632

PREP DATE: 10/26/05

COMP DATE: 10/26/05

USER: KENITZEP

INITIALS:

PREP DMANAL DM

DATA ENTRY:

INITIALS

DATE

Work Order	Lab Number	Structured Analysis	Exp. Del.	Analysis Date	Sample ID:	#col
HM936-1-AC	J-5J210189-004	XX I 88 IZ 5I	E	<u>10-20-05</u>	B1F1D6	1.0
HM936-1-AH	J-5J210189-004-X	XX I 88 IZ 5I	E	<u> / </u>	B1F1D6 DUP	1.0
HNNFA-1-AA	J-5J260000-632-B	XX I 88 IZ 5I		<u> / </u>	INTRA-LAB BLANK	0
HNNFA-1-AC	J-5J260000-632-C	XX I 88 IZ 5I		<u> √ </u>	INTRA-LAB CHECK	10.9

Control Limits

(0-0)

PA
11/30/05

RQC050

Severn Trent Laboratories, Inc.
WET CHEM BATCHSHEETRun Date: 11/30/05
Time: 12:40:08

STL Richland

PRODUCTION FIGURES - WET CHEM

<u>TOTAL NUMBER</u>	<u>SAMPLE NUMBER</u>	<u>QC</u>	<u>RE-RUN MATRIX</u>	<u>RE-RUN OTHER</u>	<u>MISC NUMBER</u>	<u>TOTAL HOURS</u>	<u>EXPANDED DELIVERABLE</u>
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METHOD: IZ COLIFORM BY METHOD 9223
QC BATCH #: 5334372
PREP DATE: 11/30/05
COMP DATE: 10/26/05
USER: KENITZEP

INITIALS:
PREP DM
ANAL DM

DATA ENTRY:
INITIALS _____
DATE _____

Work Order	Lab Number	Structured Analysis	Exp. Del.	Analysis Date	Sample ID:	# Col
HNH18-1-AC	J-5J250145-001	XX I 88 IZ 5I	E	10-24-05	B1F1C5	0
HNH2C-1-AC	J-5J250145-002	XX I 88 IZ 5I	E		B1F1C4	0
HNH2C-1-AG	J-5J250145-002-X	XX I 88 IZ 5I	E		B1F1C4 DUP	0
HQ5L2-1-AA	J-5K300000-372-B	XX I 88 IZ 5I			INTRA-LAB BLANK	0
HQ5L2-1-AC	J-5K300000-372-C	XX I 88 IZ 5I			INTRA-LAB CHECK	7.4

Control Limits

(0-0)

PA
11-30-05

Lot No., Due Date: J5J200181,J5J200184,J5J210189,J5J220210,J5J250137; 12/08/2005
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 5299629; RGAMLEPS Gamma by LEPS
SDG, Matrix: W04799; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level Review

Pam Anderson

Date 12-6-05



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number:

5299629

Review Item	Yes (✓)	No (✓)	N/A (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response:

Second Level Review:

Jodie C.

Date:

12/21/05

Lot No., Due Date: J5J220219, J5J250143; 12/08/2005
Client, Site: 384868; PGW 615 HANFORD HANFORD
QC Batch No., Method Test: 5299583; RGAMMA Gamma by GER
SDG, Matrix: W04799; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes ☒ No ☐ N/A ☐

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes ☒ No ☐ N/A ☐

2.2 Are the QC appropriate for the analysis included in the batch? Yes ☒ No ☐ N/A ☐

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes ☒ No ☐ N/A ☐

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes ☒ No ☐ N/A ☐

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes ☒ No ☐ N/A ☐

3.2 Is the LCS result, yield, and MDA within contract limits? Yes ☒ No ☐ N/A ☐

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes ☐ No ☐ N/A ☒

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes ☒ No ☐ N/A ☐

3.5 Are the sample yields and MDAs within contract limits? Yes ☒ No ☐ N/A ☐

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes ☒ No ☐ N/A ☐

4.2 Were analysis volumes entered correctly? Yes ☒ No ☐ N/A ☐

4.3 Were Yields entered correctly? Yes ☐ No ☐ N/A ☒

4.4 Were spectra reviewed/meet contractual requirements? Yes ☒ No ☐ N/A ☐

4.5 Were raw counts reviewed for anomalies? Yes ☒ No ☐ N/A ☐

5.0 Other

5.1 Are all nonconformances included and noted? Yes ☐ No ☐ N/A ☒

5.2 Are all required forms filled out? Yes ☒ No ☐ N/A ☐

5.3 Was the correct methodology used? Yes ☒ No ☐ N/A ☐

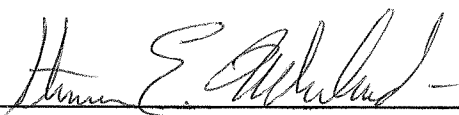
5.4 Was transcription checked? Yes ☒ No ☐ N/A ☐

5.5 Were all calculations checked at a minimum frequency? Yes ☒ No ☐ N/A ☐

5.6 Are worksheet entries complete and correct? Yes ☒ No ☐ N/A ☐

6.0 Comments on any No response:

First Level Review



Date

11/29/05



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5299583

Review Item	Yes (✓)	No (✓)	N/A (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Jodie A Date: 12/21/05

Lot No., Due Date: J5J200181,J5J200184,J5J210189,J5J220210,J5J220219,J5J250143,J5J250145,J5J250137;
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 5299573; RALPHA-A Alpha by GPC-Am
SDG, Matrix: W04799; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level Review

Pam Anderson

Date

12-7-05



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5299573

Review Item	Yes (✓)	No (✓)	N/A (✓)
A. Sample Analysis			✓
1. Are the sample yields within acceptance criteria?			
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: _____

Date: 12/21/05

Lot No., Due Date: J5J200181,J5J200184,J5J210189,J5J220217,J5J220210,J5J220219,J5J250143,J5J250145,J5J250146
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 5299576; RBETA-SR Beta by GPC-Sr/Y
SDG, Matrix: W04799; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

See NCM.

12-07107

First Level Review

Pam Anderson

Date

12-7-05



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5299576

Review Item	Yes (✓)	No (✓)	N/A (✓)
A. Sample Analysis			✓
1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓	✓	
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other	✓		
1. Are all Nonconformances included and noted?	✓		
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: BIDYR6 activity > mDA > CRDL

Second Level Review: Jodie

Date: 12/21/05

Clouseau Nonconformance Memo

SEVERN
TRENT
SERVICES

NCM #: **10-07107**

NCM Initiated By: Pam Anderson

Date Opened: 12/07/2005

Date Closed:

Classification: **Anomaly**

Status: **GLREVIEW**

Production Area: Environmental - Sep

Tests: Beta by GPC-Sr/Y

Lot #'s (Sample #'s): J5J200181 (1),

QC Batches: 5299576

Nonconformance: MDA not met

Subcategory: Sample size reduced due to high residue mass

Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
Pam Anderson	12/07/2005	Sample HM6AF1AD does not meet CRDL due to high dissolved solids in the sample. The sample was counted for the maximum time.

Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
Pam Anderson	12/07/2005	None at this time.

Client Notification Summary

<u>Client</u>	<u>Project Manager</u>	<u>Notified</u>	<u>Response</u>	<u>How Notified</u>	<u>Note</u>
			<u>Response</u>		<u>Response Note</u>

Quality Assurance Verification

<u>Verified By</u>	<u>Due Date</u>	<u>Status</u>	<u>Notes</u>
		This section not yet completed by QA.	

Approval History

<u>Date Approved</u>	<u>Approved By</u>	<u>Position</u>
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Lot No., Due Date: J5J250143; 12/08/2005
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 5299626; RSR85907 Sr-85/90 by GPC-7
SDG, Matrix: W04799; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level Review

Pam Anderson

Date

11-23-05



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5299624

Review Item	Yes (✓)	No (✓)	N/A (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Jodie Co Date: 12/21/05

Lot No., Due Date: J5J220217; 12/08/2005
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 5299630; RC14 C-14 by LSC
SDG, Matrix: W04799; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level Review

Pam Anderson

Date 12-9-05



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number: 5299630

Review Item	Yes (✓)	No (✓)	N/A (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Jodie Ca Date: 12/21/05

Lot No., Due Date: J5J200181,J5J200184,J5J220217,J5J220210,J5J250137; 12/08/2005
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 5299559; RTC99 Tc-99 by LSC
SDG, Matrix: W04799; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level Review



Date

12-20-05



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number:

5299559

Review Item	Yes (✓)	No (✓)	N/A (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?	✓		
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response:

Second Level Review:

Jodie C.

Date:

12/21/05

Lot No., Due Date: J5J200181,J5J200184,J5J210189,J5J220217,J5J220210,J5J220219,J5J250143,J5J250145,J5J250146
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 5299563; RTRITIUM H-3 by LSC
SDG, Matrix: W04799; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level Review

John Harton

Date

12-13-05



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number:

5299563

Review Item	Yes (✓)	No (✓)	N/A (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response:

Second Level Review:

[Signature]

Date:

12/21/05

Lot No., Due Date: J5J200181,J5J200184,J5J220210,J5J250137; 12/08/2005
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 5299557; RUNAT UNat by KPA
SDG, Matrix: W04799; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

See NCM.

10-07125

First Level Review Pam Andersen

Date 12-12-05

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number:

5299557

Review Item	Yes (✓)	No (✓)	N/A (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
8. Do the MS/MSD results and yields meet acceptance criteria?	✓		
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?	✓		
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response:

Second Level Review:

Jodie G

Date:

12/21/05

Clouseau Nonconformance Memo

SEVERN
TRENT
SERVICES

NCM #: **10-07125**
NCM Initiated By: Pam Anderson
Date Opened: 12/12/2005
Date Closed:

Classification: **Anomaly**
Status: **CHREVIEW**
Production Area: Counting
Tests: UNat by KPA
Lot #'s (Sample #'s): J5J200181 (1,2,3),
J5J200184 (1,2,3),
J5J220210 (1), J5J250137
(1,2,3), J5J260000 (557),
QC Batches: 5299557

Nonconformance: Other (describe in detail)
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name	Date	Description
Pam Anderson	12/12/2005	The batch was recounted when the calibration for the day showed only two points were acceptable for the calibration. Recalibrating the next and recounting gives good results.

Corrective Action

Name	Date	Corrective Action
Pam Anderson	12/12/2005	Counting tech was given further instruction.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
			<u>Response</u>		<u>Response Note</u>

Quality Assurance Verification

Verified By	Due Date	Status	Notes
			This section not yet completed by QA.

Approval History

Date Approved	Approved By	Position

Lot No., Due Date: J5J210189; 12/08/2005
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 5299632;
SDG, Matrix: W04799; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level Review

Pam Anderson

Date 11-30-05



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number:

5299632

Review Item	Yes (✓)	No (✓)	N/A (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?			✓
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?			✓
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?			✓
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response:

Second Level Review:

Jodiella

Date:

12/21/05

Lot No., Due Date: J5J250145; 12/08/2005
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 5334372;
SDG, Matrix: W04799; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level Review

Pam Anderson

Date

11-30-05



STL

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

QC Batch Number:

5334372

Review Item	Yes (✓)	No (✓)	N/A (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?			✓
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?			✓
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery with contract acceptance criteria?	✓		
7. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?			✓
8. Do the MS/MSD results and yields meet acceptance criteria?			✓
9. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response:

Second Level Review:

Jodie G

Date:

12/21/05

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # A06-010-2
		Page <u>1</u> of <u>1</u>

Collector <u>DUPATEK</u> <u>D. R. BREWINGTON</u>	Contact/Requester Dot Stewart	Telephone No. <u>509-376-5056</u> MSIN <u> </u> FAX <u> </u>
SAF No. <u>A06-010</u>	Sampling Origin	Purchase Order/Charge Code
Project Title <u>PA OCTOBER, 2005</u>	<u>SAWS-493</u>	Ice Chest No. <u>SAWS-212</u> Temp. <u> </u>
Shipped To (Lab) <u>Severn Trent Incorporated, Richland</u>	Method of Shipment <u>Gov't Truck</u>	Bill of Lading/Air Bill No.
Protocol <u>Other</u>	Priority: <u>45 Days</u>	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS ** ** <div style="text-align: center; margin-top: 20px;"> <u>W04799</u> <u>J5J200181</u> <u>Done 12 02 05</u> </div>	SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	--

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DYR6		W	<u>10-19-05</u>	<u>1017</u>	1x1000-mL P	906.0_H3_LSC: Tritium (1) <div style="text-align: right;"><u>Hm 6 AF</u></div>	None
B1DYR6		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1DYR6		W			1x20-mL P	Activity Scan	None
B1DYR6		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1DYR6		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1DYR6		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By <u>D. R. BREWINGTON</u>	Received By <u>Jeff Jensen</u>	Date/Time <u>OCT 19 2005</u>
Relinquished By <u> </u>	Received By <u> </u>	Date/Time <u> </u>
Relinquished By <u> </u>	Received By <u> </u>	Date/Time <u> </u>
Relinquished By <u> </u>	Received By <u> </u>	Date/Time <u> </u>

Matrix *

S = Soil	DS = Drum Solid
SE = Sediment	DI. = Drum Liquid
SO = Solid	T = Tissue
SL = Sludge	WI = Wine
W = Water	L = Liquid
O = Oil	V = Vegetation
A = Air	X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By <u> </u>
		Date/Time <u> </u>

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. #	A06-010-3
			Page 1 of 1	
Collector D. R. BREWINGTON	Contact/Requester Dot Stewart	Telephone No. 509-376-5056	MSIN	FAX
SAF No. A06-010	Sampling Origin	Purchase Order/Charge Code		
Project Title PA OCTOBER, 2005	SAWS-H93	Ice Chest No. SAWS-Z12	Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Gov't Truck	Bill of Lading/Air Bill No.		
Protocol Other	Priority: 45 Days	Offsite Property No.		
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** W04999		SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Relinquished By		Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix *	
D. R. BREWINGTON			<i>D. R. Brewington</i>	OCT 19 2005	Jeff Jensen		<i>MM</i>	OCT 19 2005	<100 CPM S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drum Solid DL = Drum Liquid T = Tissue WI = Wine L = Liquid V = Vegetation X = Other	
Relinquished By				Date/Time	Received By			Date/Time		
Relinquished By				Date/Time	Received By			Date/Time		
Relinquished By				Date/Time	Received By			Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)					Disposed By		Date/Time	



STL

Sample Check-in List

Date/Time Received: 10/19/05 1457

Client: PLW SDG #: W04799 NA ☐ SAF #: 406-010 NA ☐

Work Order Number: J55200181 Chain of Custody # 406-010-2,3,18

Shipping Container ID: SAWS 212 Air Bill # _____

1. Custody Seals on shipping container intact? NA ☐ Yes ☒ No ☐
2. Custody Seals dated and signed? NA ☐ Yes ☒ No ☐
3. Chain of Custody record present? Yes ☒ No ☐
4. Cooler temperature: _____ NA ☒ 5. Vermiculite/packing materials is NA ☐ Wet ☐ Dry ☒
6. Number of samples in shipping container: 21
7. Sample holding times exceeded? NA ☒ Yes ☐ No ☐
8. Samples have:
____ tape _____ hazard labels
☒ custody seals ☒ appropriate samples labels
9. Samples are:
☒ in good condition _____ leaking
____ broken _____ have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? NA ☐ pH < 2 ☒ pH > 2 ☒ pH > 9 ☐
11. Sample Location, Sample Collector Listed? * Yes ☒ No ☐
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes ☐ No ☒
13. Description of anomalies (include sample numbers): _____

Sample Custodian: JHJ Date: 10/19/05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # A06-010-26	
				Page <u>1</u> of <u>1</u>	
Collector DURATEK B.T. SICKLE		Contact/Requester Dot Stewart		Telephone No. MSIN FAX 509-376-5056	
SAF No. A06-010		Sampling Origin Hanford Site		Purchase Order/Charge Code	
Project Title PA OCTOBER 2005		Logbook: DTS-SAWS-H95		Ice Chest No. SAWS-102 Temp.	
Shipped To (Lab) Sewern Trent Incorporated, Richland		Method of Shipment Gov't Truck		Bill of Lading/Air Bill No.	
Protocol Other		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** **			SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
W09799 755200184 Due 12 02 05					

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DYV1		W	10/19/05	1256	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1DYV1		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1DYV1		W			1x20-mL P	Activity Scan	None
B1DYV1		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1DYV1		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1DYV1		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By DURATEK B.T. SICKLE		Date/Time OCT 19 2005		Received By Jeff Jensen		Date/Time OCT 19 2005		Matrix * S <=100 CPM SE = Sediment DS = Drum Solid SO = Solid DI = Drum Liquid SI = Sludge T = Tissue W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other	
Relinquished By		Date/Time		Received By		Date/Time			
Relinquished By		Date/Time		Received By		Date/Time			
Relinquished By		Date/Time		Received By		Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By		Date/Time	

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # A06-010-42
	Page <u>1</u> of <u>1</u>	

Collector DURATEK R. T. SICKLE	Contact/Requester Dot Stewart	Telephone No. MSIN FAX 509-376-5056
SAF No. A06-010	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title PA OCTOBER, 2005	Logbook: DTS-SAWS-HPS	Ice Chest No. SAWS-102 Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Gov't Truck	Bill of Lading/Air Bill No.
Protocol Other	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS ** ** 6097799	SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	--

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DYW0		W	10/19/05	1149	1x1000-mL P	906.0_H3_LSC: Tritium (1) HM6CR	None
B1DYW0		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1DYW0		W			1x20-mL P	Activity Scan	None
B1DYW0		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1DYW0		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1DYW0		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By DURATEK R. T. SICKLE	Date/Time OCT 19 2005	Received By Jeff Jensen	Date/Time OCT 19 2005	Matrix * <100 CPM S = Soil DS = Drum Solid SE = Sediment DI. = Drum Liumi SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L. = Liquid O = Oil V = Vegetation A = Air X = Other	
Relinquished By	Date/Time	Received By	Date/Time		
Relinquished By	Date/Time	Received By	Date/Time		
Relinquished By	Date/Time	Received By	Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By	Date/Time

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # A06-010-30	
				Page <u>1</u> of <u>1</u>	
Collector DURATEK R.T. SICKLE		Contact/Requester Dot Stewart		Telephone No. MSIN FAX 509-376-5056	
SAF No. A06-010		Sampling Origin Hanford Site		Purchase Order/Charge Code	
Project Title PA OCTOBER, 2005		Logbook: DTS-SAWS-H9S		Ice Chest No. SAWS-102 Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Gov't Truck		Bill of Lading/Air Bill No.	
Protocol Other		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** **		W04799		SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DYV3		W	10/19/05	1049	1x1000-mL P	906.0_H3_LSC: Tritium (1) Hm6 CV	None
B1DYV3		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1DYV3		W			1x20-mL P	Activity Scan	None
B1DYV3		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1DYV3		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1DYV3		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By DURATEK R.T. SICKLE		Print Sign		Date/Time OCT 19 2005		Received By Jeff Jensen		Print Sign		Date/Time OCT 19 2005		Matrix * <100 CPM S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By				Date/Time		Received By		Date/Time				
Relinquished By				Date/Time		Received By		Date/Time				
Relinquished By				Date/Time		Received By		Date/Time				
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)						Disposed By		Date/Time		



STL

Sample Check-in List

Date/Time Received: 10/19/05 1450

Client: PuW SDG #: 609799 NA ☐ SAF #: 406-010 NA ☐

Work Order Number: J5J200184 Chain of Custody # 406-010-26, 42, 30

Shipping Container ID: SAWS 102 Air Bill # _____

1. Custody Seals on shipping container intact? NA ☐ Yes ☒ No ☐
2. Custody Seals dated and signed? NA ☐ Yes ☒ No ☐
3. Chain of Custody record present? Yes ☒ No ☐
4. Cooler temperature: _____ NA ☒ 5. Vermiculite/packing materials is NA ☐ Wet ☐ Dry ☒
6. Number of samples in shipping container: 21
7. Sample holding times exceeded? NA ☒ Yes ☐ No ☐
8. Samples have:
____ tape _____ hazard labels
☒ custody seals ☒ appropriate samples labels
9. Samples are:
☒ in good condition _____ leaking
____ broken _____ have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? NA ☐ pH < 2 ☒ pH > 2 ☒ pH > 9 ☐
11. Sample Location, Sample Collector Listed? * Yes ☒ No ☐
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes ☐ No ☒
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [Signature] Date: 10/19/05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # S06-010-162	
				Page <u>1</u> of <u>1</u>	
Collector D.P. CONNOLLY		Contact/Requester Dot Stewart		Telephone No. MSIN FAX 509-376-5056	
SAF No. S06-010		Sampling Origin Hanford		Purchase Order/Charge Code	
Project Title LTMC/SURV. OCTOBER 2005		DTS- SAWS- 498		Ice Chest No. SAL-550 Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt. Truck		Bill of Lading/Air Bill No.	
Protocol SURV		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** W04799			SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1F1F8		W	10/20/05	1111	1x1000-mL P	906.0_H3_LSC: Tritium (1) Hm 935	None
B1F1F8		W	↓	↓	1x20-mL P	Activity Scan	None

Relinquished By D.P. CONNOLLY OCT 20 2005 1355		Received By Jeff Jensen OCT 20 2005 1355		<100 CPM * S = Soil DS = Drum Solid SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SI = Sludge WI = Wine W = Water LI = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time		

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # S06-010-150	
				Page <u>1</u> of <u>1</u>	
Collector D.P. CONNOLLY		Contact/Requester Dot Stewart		Telephone No. MSIN FAX 509-376-5056	
SAF No. S06-010		Sampling Origin Hanford		Purchase Order/Charge Code	
Project Title LTMC/SURV. OCTOBER 2005		OTS-SAWS-498		Ice Chest No. SML-SSC Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt. Truck		Bill of Lading/Air Bill No.	
Protocol SURV		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** **			SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
W09799 J5J210189 Due 12 05 05					

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1F1F2		W	10/20/05	1011	1x1000-mL P	906.0_H3_LSC: Tritium (1) HM93M	None
B1F1F2		W	↓	↓	1x20-mL P	Activity Scan	None

Relinquished By D.P. CONNOLLY		Print Sign [Signature]		Date/Time OCT 20 2005 1355		Received By Jeff Jensen		Print Sign [Signature]		Date/Time OCT 20 2005 1355		<100 CPM Matrix * S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By				Date/Time		Received By				Date/Time		
Relinquished By				Date/Time		Received By				Date/Time		
Relinquished By				Date/Time		Received By				Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)						Disposed By		Date/Time		

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # S06-010-156	
				Page <u>1</u> of <u>1</u>	
Collector D.P. CONNOLLY		Contact/Requester Dot Stewart		Telephone No. MSIN FAX 509-376-5056	
SAF No. S06-010		Sampling Origin Hanford		Purchase Order/Charge Code	
Project Title LTMC/SURV. OCTOBER 2005		DTS-SAWS-H98		Ice Chest No. SML-550 Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt. Truck		Bill of Lading/Air Bill No.	
Protocol SURV		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** W04799			SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1F1F5		W	10/20/05	1048	1x1000-mL P	906.0_H3_LSC: Tritium (1) Hm 931	None
B1F1F5		W	↓	↓	1x20-mL P	Activity Scan	None

Relinquished By D.P. CONNOLLY <i>[Signature]</i> OCT 20 2005 1355		Received By Jeff Jensen <i>[Signature]</i> OCT 20 2005 1355		<100 CPM S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By		Received By		
Relinquished By		Received By		
Relinquished By		Received By		
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time		

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # S06-010-224	
				Page <u>1</u> of <u>1</u>	
Collector D.P. CONNOLLY		Contact/Requester Dot Stewart		Telephone No. MSIN FAX 509-376-5056	
SAF No. S06-010		Sampling Origin Hanford		Purchase Order/Charge Code	
Project Title LTMC/SURV. OCTOBER 2005		DTS-SAWS-H98		Ice Chest No. SAXL-SSO Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt. Truck		Bill of Lading/Air Bill No.	
Protocol SURV		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** **			SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
W04799					

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1F1D6		W	10/20/05	1231	1x1000-mL P	906.0_H3_LSC: Tritium (1) HM 936	None
B1F1D6		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1F1D6		W	↓	↓	1x20-mL P	Activity Scan	None
B1F1D6		W	↓	↓	1x500-mL P	9223_COLIFORM: Coliform (1) 4.0°C	Na2S2O3 Cool 4C
B1F1D6		W	✓	✓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None

Relinquished By D.P. CONNOLLY OCT 20 2005 1355		Received By Jeff Jensen OCT 20 2005 1355		Matrix * <100 CPM S = Soil DS = Drum Solid SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other	
Relinquished By	Date/Time	Received By	Date/Time		
Relinquished By	Date/Time	Received By	Date/Time		
Relinquished By	Date/Time	Received By	Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By	Date/Time



STL

Sample Check-in List

Date/Time Received: 10 20 05 1355

Client: PCW SDG #: W04799 NA [] SAF #: S06-010 NA []

Work Order Number: J5J210189 Chain of Custody # S06-010-224, 162, 156, 150

Shipping Container ID: SML 550 Air Bill # _____

1. Custody Seals on shipping container intact? NA [] Yes ☒ No []
2. Custody Seals dated and signed? NA [] Yes ☒ No []
3. Chain of Custody record present? Yes ☒ No []
4. Cooler temperature: 9.0 ^{coll. form} NA ☒ 5. Vermiculite/packing materials is NA [] Wet [] Dry []
6. Number of samples in shipping container: 12
7. Sample holding times exceeded? NA [] Yes [] No ☒
8. Samples have:
____ tape _____ hazard labels
☒ custody seals ☒ appropriate samples labels
9. Samples are:
☒ in good condition _____ leaking
____ broken _____ have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? NA [] pH < 2 ☒ pH > 2 ☒ pH > 9 []
11. Sample Location, Sample Collector Listed? * Yes ☒ No []
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [] No ☒
13. Description of anomalies (include sample numbers): _____

Sample Custodian: JHJ Date: 10 20 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # A06-010-14	
				Page <u>1</u> of <u>1</u>	
Collector J.G. HOGAN		Contact/Requester Dot Stewart		Telephone No. MSIN FAX 509-376-5056	
SAF No. A06-010		Sampling Origin		Purchase Order/Charge Code	
Project Title PA OCTOBER, 2005		DT5 SAWS-1193		Ice Chest No. SAWS 212 Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Gov't Truck		Bill of Lading/Air Bill No.	
Protocol Other		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** <div style="text-align: center; margin-top: 20px;"> W09799 J5J220210 Due 12 05 05 </div>				SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DYT4		W	10-21-05	1218	1x1000-mL P	906.0_H3_LSC: Tritium (1)	None
B1DYT4		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1DYT4		W			1x20-mL P	Activity Scan	None
B1DYT4		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1DYT4		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1DYT4		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By J.G. HOGAN		Print Sign		Date/Time OCT 21 2005 1405		Received By Jeff Jensen		Print Sign		Date/Time OCT 21 2005 1405		<100 CPM Matrix * S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other			
Relinquished By		Date/Time		Received By		Date/Time									
Relinquished By		Date/Time		Received By		Date/Time									
Relinquished By		Date/Time		Received By		Date/Time									
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)										Disposed By		Date/Time	



STL

Sample Check-in List

Date/Time Received: 10 21 05 1905

Client: PAW SDG #: W09799 NA [] SAF #: A06-010 NA []

Work Order Number: J5J220210

Chain of Custody # A06-010-14

Shipping Container ID: SAWS 212

Air Bill # _____

1. Custody Seals on shipping container intact? NA [] Yes ☒ No []
2. Custody Seals dated and signed? NA [] Yes ☒ No []
3. Chain of Custody record present? Yes ☒ No []
4. Cooler temperature: _____ NA ☒ 5. Vermiculite/packing materials is NA [] Wet [] Dry ☒
6. Number of samples in shipping container: 7
7. Sample holding times exceeded? NA ☒ Yes [] No []
8. Samples have:
_____ tape _____ hazard labels
☒ custody seals 2 appropriate samples labels
9. Samples are:
☒ in good condition _____ leaking
_____ broken _____ have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? NA [] pH < 2 ☒ pH > 2 ☒ pH > 9 []
11. Sample Location, Sample Collector Listed? * Yes ☒ No []
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [] No ☒
13. Description of anomalies (include sample numbers): _____

Sample Custodian: JAH Date: 10 21 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						C.O.C. # S06-010-210 Page 1 of 1
Collector D.P. CONNOLLY			Contact/Requester Dot Stewart			Telephone No. 509-376-5056 MSIN FAX	
SAF No. S06-010			Sampling Origin Hanford			Purchase Order/Charge Code	
Project Title LTMC/SURV. OCTOBER 2005			Ice Chest No. SML-SSC Temp.				
Shipped To (Lab) Severn Trent Incorporated, Richland			Method of Shipment Govt. Truck			Bill of Lading/Air Bill No.	
Protocol SURV			Priority: 45 Days			Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** W09799 J5J220217 On 12 05 05				SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes [X] No []			
Sample No.	Lab ID	*	Date	Time	No./Type Container	Sample Analysis	Preservative
B1F1B5		W	10/21/05	1055	1x20-mL P	Activity Scan HNES3	None
B1F1B5		W	↓	↓	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
Relinquished By Print Sign D.P. CONNOLLY OCT 21 2005	Date/Time 1350	Received By Print Sign DAVID HANDBINSKY OCT 21 2005	Date/Time 1450	Matrix * <100 CPM			
Relinquished By	Date/Time	Received By	Date/Time	S = Soil DS = Drum Solid SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water LI = Liquid O = Oil V = Vegetation A = Air X = Other			
Relinquished By	Date/Time	Received By	Date/Time				
Relinquished By	Date/Time	Received By	Date/Time				
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By		Date/Time	

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # S06-010-74	
				Page <u>1</u> of <u>1</u>	
Collector: P. CONNOLLY		Contact/Requester Dot Stewart		Telephone No. MSIN FAX 509-376-5056	
SAF No. S06-010		Sampling Origin Hanford		Purchase Order/Charge Code	
Project Title LTMC/SURV. OCTOBER 2005		DTS - SAWS - H89		Ice Chest No. SML-SSO Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt. Truck		Bill of Lading/Air Bill No.	
Protocol SURV		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** W04799				SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1F193		W	10/21/05	1000	1x1000-mL P	906.0_H3_LSC: Tritium (1) HNE57	None
B1F193		W	↓	↓	1x20-mL P	Activity Scan	None
B1F193		W	↓	↓	2x1000-mL G/P	C14_LSC: C-14 (1)	None
B1F193		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Gross Beta (1)	HNO3 to pH <2

Relinquished By D.P. CONNOLLY Date/Time: OCT 21 2005 / 13:50		Received By DAVID HABIBI Date/Time: OCT 21 2005 / 14:50		Matrix * S = Soil DS = Drum Solid SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WL = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other	
Relinquished By Date/Time		Received By Date/Time			
Relinquished By Date/Time		Received By Date/Time			
Relinquished By Date/Time		Received By Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time			



STL

Sample Check-in List

Date/Time Received: 10 21 05 1350

Client: PLW SDG #: W09799 NA ☐ SAF #: I05-099 NA ☐

Work Order Number: BJ220 217

Chain of Custody # I06-001-172 406-001-50

Shipping Container ID: SML550

Air Bill # 506-010-79,210 I05-099-131

1. Custody Seals on shipping container intact? NA ☐ Yes ☒ No ☐
2. Custody Seals dated and signed? NA ☐ Yes ☒ No ☐
3. Chain of Custody record present? Yes ☒ No ☐
4. Cooler temperature: _____ NA ☒ 5. Vermiculite/packing materials is NA ☐ Wet ☐ Dry ☒
6. Number of samples in shipping container: 22
7. Sample holding times exceeded? NA ☒ Yes ☐ No ☐
8. Samples have:
____ tape _____ hazard labels
☒ custody seals ☒ appropriate samples labels
9. Samples are:
☒ in good condition _____ leaking
____ broken _____ have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? NA ☐ pH < 2 ☒ pH > 2 ☒ pH > 9 ☐
11. Sample Location, Sample Collector Listed? * Yes ☒ No ☐
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes ☐ No ☒
13. Description of anomalies (include sample numbers): _____

Sample Custodian: J.H. Date: 10 21 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I06-001-172
		Page <u>1</u> of <u>1</u>

Collector D.P. CONNOLLY	Contact/Requester Dot Stewart	Telephone No. MSIN FAX 509-376-5056
SAF No. I06-001	Sampling Origin	Purchase Order/Charge Code
Project Title CERCLA 100KR4IAM(1)/(2) 100 NR2IAM ISRM	DTS-SAWS-H98	Ice Chest No. SML-SSC Temp.
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Truck	Bill of Lading/Air Bill No.
Protocol CERCLA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS ** **	W04799 J5J220219 Due 12 05 05	SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1F392		W	10/21/05	1055	1x1000-mL P	906.0_H3_LSC: Tritium (1) HNE 6F	None
B1F392		W	↓	↓	1x20-mL P	Activity Scan	None
B1F392		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1F392		W	↓	↓	3x1000-mL G/P	GAMMA_GS: List-1 (10)	HNO3 to pH <2

Relinquished By D.P. CONNOLLY	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time OCT 21 2005 1350	Received By DAVID HANSEN	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time OCT 21 2005 1450	S = Soil DS = Drum Solid SE = Sediment DI. = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time		



STL

Sample Check-in List

Date/Time Received: 10 21 05 1350

I06-001

506-010

406-001

Client: PLW

SDG #: W09799

NA []

SAF #: I05-099

NA []

Work Order Number: JSJ220219

Chain of Custody # I06-001-172

406-001-50

Shipping Container ID: SML550

Air Bill # 506-010-79,210

I05-099-131

1. Custody Seals on shipping container intact? NA [] Yes ☒ No []
2. Custody Seals dated and signed? NA [] Yes ☒ No []
3. Chain of Custody record present? Yes ☒ No []
4. Cooler temperature: _____ NA ☒ 5. Vermiculite/packing materials is NA [] Wet [] Dry ☒
6. Number of samples in shipping container: 22
7. Sample holding times exceeded? NA ☒ Yes [] No []
8. Samples have:
_____ tape _____ hazard labels
☒ custody seals ☒ appropriate samples labels
9. Samples are:
☒ in good condition _____ leaking
_____ broken _____ have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? NA [] pH<2 ☒ pH>2 ☒ pH>9 []
11. Sample Location, Sample Collector Listed? * Yes ☒ No []
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [] No ☒
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [Signature]

Date: 10 21 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # A06-010-22	
				Page <u>1</u> of <u>1</u>	
Collector DURATEK D. R. BREWINGTON		Contact/Requester Dot Stewart		Telephone No. MSIN FAX 509-376-5056	
SAF No. A06-010		Sampling Origin		Purchase Order/Charge Code	
Project Title PA OCTOBER, 2005		<i>Logbook DTS SAWS-1493</i>		Ice Chest No. <i>SML 584</i> Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Gov't Truck		Bill of Lading/Air Bill No.	
Protocol Other		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** <i>W0 9799</i> <i>J5J250137</i> <i>Due 12 08 05</i>			SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DYT7		W	<i>10-24-05</i>	<i>1027</i>	1x1000-mL P	906.0_H3_LSC: Tritium (1) <i>HNH1P</i>	None
B1DYT7		W	<i>1</i>	<i>1</i>	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1DYT7		W	<i>1</i>	<i>1</i>	1x20-mL P	Activity Scan	None
B1DYT7		W	<i>1</i>	<i>1</i>	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1DYT7		W	<i>1</i>	<i>1</i>	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1DYT7		W	<i>1</i>	<i>1</i>	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By DURATEK <i>D. R. Brewington</i>		Date/Time <i>10/24/05</i> OCT 24 2005		Received By Jeff Jensen <i>Jeff Jensen</i>		Date/Time <i>10/24/05</i> OCT 24 2005		<100 CPM Matrix * S = Soil DS = Drum Solid SE = Sediment DI. = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other	
Relinquished By		Date/Time		Received By		Date/Time			
Relinquished By		Date/Time		Received By		Date/Time			
Relinquished By		Date/Time		Received By		Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By		Date/Time	

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # A06-010-23	
				Page <u>1</u> of <u>1</u>	
Collector DURATEK D. R. BREWINGTON		Contact/Requester Dot Stewart		Telephone No. MSIN FAX 509-376-5056	
SAF No. A06-010		Sampling Origin		Purchase Order/Charge Code	
Project Title PA OCTOBER, 2005		<i>Logbook DTS-SALOS-H 93</i>		Ice Chest No. <i>SMC 582</i> Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Gov't Truck		Bill of Lading/Air Bill No.	
Protocol Other		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** <i>WO 4799</i>			SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DYT8		W	<i>10-24-05</i>	<i>0900</i>	1x1000-mL P	906.0_H3_LSC: Tritium (1) <i>HNHIV</i>	None
B1DYT8		W			1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1DYT8		W			1x20-mL P	Activity Scan	None
B1DYT8		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1DYT8		W			1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1DYT8		W			1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By DURATEK D. R. BREWINGTON		Print <i>[Signature]</i> Sign <i>[Signature]</i> Date/Time <i>10/24/05</i>		Received By Jeff Jensen		Print <i>[Signature]</i> Sign <i>[Signature]</i> Date/Time <i>10/24/05</i>		Matrix * <100 CPM	
Relinquished By		Date/Time		Received By		Date/Time		S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other	
Relinquished By		Date/Time		Received By		Date/Time			
Relinquished By		Date/Time		Received By		Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By		Date/Time	

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # A06-010-6	
				Page <u>1</u> of <u>1</u>	
Collector DURATEK D. R. BREWINGTON		Contact/Requester Dot Stewart		Telephone No. MSIN FAX 509-376-5056	
SAF No. A06-010		Sampling Origin		Purchase Order/Charge Code	
Project Title PA OCTOBER, 2005		<i>Logbook DTS-SAWS-H93</i>		Ice Chest No. <i>SML-984</i> Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Gov't Truck		Bill of Lading/Air Bill No.	
Protocol Other		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** **			SPECIAL INSTRUCTIONS		
<i>WO 4799</i>			Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1DYT0		W	<i>10-24-05</i>	<i>1204</i>	1x1000-mL P	906.0_H3_LSC: Tritium (1) <i>HNHIW</i>	None
B1DYT0		W	<i> </i>	<i> </i>	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1DYT0		W	<i> </i>	<i> </i>	1x20-mL P	Activity Scan	None
B1DYT0		W	<i> </i>	<i> </i>	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	None
B1DYT0		W	<i> </i>	<i> </i>	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1)	HCl to pH <2
B1DYT0		W	<i> </i>	<i> </i>	1x500-mL G/P	UTOT_KPA: Uranium (1)	HNO3 to pH <2

Relinquished By DURATEK D. R. BREWINGTON		Print		Sign <i>D.R. Brewington</i>		Date/Time <i>10/24/05</i>		Received By Jeff Jensen		Print		Sign <i>Jeff Jensen</i>		Date/Time <i>10/24/05</i>		<100 CPM Matrix * S = Soil DS = Drum Solid SE = Sediment DI = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other	
Relinquished By						Date/Time		Received By				Date/Time					
Relinquished By						Date/Time		Received By				Date/Time					
Relinquished By						Date/Time		Received By				Date/Time					
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)										Disposed By		Date/Time			



STL

Sample Check-in List

Date/Time Received: 10 24 05 1440

Client: P4W SDG #: 409799 NA ☐ SAF #: A06-010 NA ☐

Work Order Number: 050250137 Chain of Custody # A06-010-23, 22, 6

Shipping Container ID: SM4584 Air Bill # _____

1. Custody Seals on shipping container intact? NA ☐ Yes ☒ No ☐
2. Custody Seals dated and signed? NA ☐ Yes ☒ No ☐
3. Chain of Custody record present? Yes ☒ No ☐
4. Cooler temperature: _____ NA ☒ 5. Vermiculite/packing materials is NA ☐ Wet ☐ Dry ☒
6. Number of samples in shipping container: 2/
7. Sample holding times exceeded? NA ☒ Yes ☐ No ☐
8. Samples have:
_____ tape _____ hazard labels
☒ custody seals ☒ appropriate samples labels
9. Samples are: _____
☒ in good condition _____ leaking
_____ broken _____ have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? NA ☐ pH < 2 ☒ pH > 2 ☐ pH > 9 ☐
11. Sample Location, Sample Collector Listed? * Yes ☒ No ☐
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes ☐ No ☒
13. Description of anomalies (include sample numbers): _____

Sample Custodian: JMJ Date: 10 24 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

PNNL	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I06-001-100
	Page <u>1</u> of <u>1</u>	

Collector D.P. CONNOLLY	Contact/Requester Dot Stewart	Telephone No. MSIN FAX 509-376-5056
SAF No. I06-001	Sampling Origin Hanford	Purchase Order/Charge Code
Project Title CERCLA 100KR4IAM(1)/(2) 100 NR2IAM ISRM	DTS. SAWS. H98	Ice Chest No. Temp. SAXL-550
Shipped To (Lab) Severn Trent Incorporated, Richland	Method of Shipment Govt. Truck	Bill of Lading/Air Bill No.
Protocol CERCLA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS ** ** <div style="text-align: center; font-family: cursive;"> W04799 J5J250143 Due 12 08 05 </div>	SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1F356		W	10/24/5	1117	1x1000-mL P	906.0_H3_LSC: Tritium (1) <div style="text-align: right; font-family: cursive;">HNH/6</div>	None
B1F356		W	↓	↓	1x20-mL P	Activity Scan	None
B1F356		W	↓	↓	3x1000-mL G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1)	HNO3 to pH <2
B1F356		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1F356		W	↓	↓	3x1000-mL G/P	GAMMA_GS: List-1 (10)	HNO3 to pH <2

Relinquished By D.P. CONNOLLY <i>[Signature]</i> OCT 24 2005 1/430	Received By Jeff Jensen <i>[Signature]</i> OCT 24 2005 1/430	<100 CFM Matrix * S = Soil DS = Drum Solid SE = Sediment DI. = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L. = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Received By	
Relinquished By	Received By	
Relinquished By	Received By	
FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time		



STL

Sample Check-in List

Date/Time Received: 10 29 05 1430

Client: PAW SDG #: W04799 NA ☐ SAF #: 506-010 106-001 NA ☐

Work Order Number: 555250143

Chain of Custody # 506-010-168,169 106-001-100

Shipping Container ID: SML 550

Air Bill # _____

1. Custody Seals on shipping container intact? NA ☐ Yes ☒ No ☐
2. Custody Seals dated and signed? NA ☐ Yes ☒ No ☐
3. Chain of Custody record present? Yes ☒ No ☐
4. Cooler temperature: 4.0 ^{for coliforms} NA ☒ 5. Vermiculite/packing materials is NA ☐ Wet ☐ Dry ☒
6. Number of samples in shipping container: 17
7. Sample holding times exceeded? NA ☐ Yes ☐ No ☒
8. Samples have:
____ tape _____ hazard labels
☒ custody seals ☒ appropriate samples labels
9. Samples are:
☒ in good condition _____ leaking
____ broken _____ have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? NA ☐ pH<2 ☒ pH>2 ☒ pH>9 ☐
11. Sample Location, Sample Collector Listed? * Yes ☒ No ☐
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes ☐ No ☒
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [Signature] Date: 10 29 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # S06-010-169	
				Page <u>1</u> of <u>1</u>	
Collector D.P. CONNOLLY		Contact/Requester Dot Stewart		Telephone No. MSIN FAX 509-376-5056	
SAF No. S06-010		Sampling Origin Hanford		Purchase Order/Charge Code	
Project Title LTMC/SURV. OCTOBER 2005		DTS - SAWS - H98		Ice Chest No. SAXL-550 Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt. Truck		Bill of Lading/Air Bill No.	
Protocol SURV		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** <div style="text-align: center; margin-top: 10px;"> W04799 J5J250145 Due 12 08 05 </div>				SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1F1C5		W	10/24/05	0800	1x1000-mL P	906.0_H3_LSC: Tritium (1) HNH18	None
B1F1C5		W	↓	↓	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1F1C5		W	↓	↓	1x20-mL P	Activity Scan	None
B1F1C5		W	↓	↓	1x500-mL P	9223_COLIFORM: Coliform (1) 4.0 °C	Na2S2O3 Cool 4C

Relinquished By D.P. CONNOLLY OCT 24 2005 1430		Received By Jeff Jensen OCT 24 2005 1430		<100 CPM * <div style="font-size: small;"> S = Soil DS = Drum Solid SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other </div>
Relinquished By _____ Date/Time _____		Received By _____ Date/Time _____		
Relinquished By _____ Date/Time _____		Received By _____ Date/Time _____		
Relinquished By _____ Date/Time _____		Received By _____ Date/Time _____		
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process) _____ Disposed By _____ Date/Time _____		

PNNL		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # S06-010-168	
				Page <u>1</u> of <u>1</u>	
Collector D.P. CONNOLLY		Contact/Requester Dot Stewart		Telephone No. MSIN FAX 509-376-5056	
SAF No. S06-010		Sampling Origin <i>Hanford</i>		Purchase Order/Charge Code	
Project Title LTMC/SURV. OCTOBER 2005				Ice Chest No. <i>SML-550</i> Temp.	
Shipped To (Lab) Severn Trent Incorporated, Richland		Method of Shipment Govt. Truck		Bill of Lading/Air Bill No.	
Protocol SURV		Priority: 45 Days		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** **			SPECIAL INSTRUCTIONS		
<i>W04799</i>			Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1F1C4		W	<i>10/24/05</i>	<i>1351</i>	1x1000-mL P	906.0_H3_LSC: Tritium (1) <i>HNH2C</i>	None
B1F1C4		W	<i>↓</i>	<i>↓</i>	1x1000-mL P	9310_ALPHABETA_GPC: Alpha + Beta (2)	HNO3 to pH <2
B1F1C4		W	<i>↓</i>	<i>↓</i>	1x20-mL P	Activity Scan	None
B1F1C4		W	<i>↓</i>	<i>↓</i>	1x500-mL P	9223_COLIFORM: Coliform (1) <i>4.0 °C</i>	Na2S2O3 Cool 4C

Relinquished By D.P. CONNOLLY <i>[Signature]</i> OCT 24 2005 <i>1430</i>		Received By Jeff Jensen <i>[Signature]</i> OCT 24 2005 <i>1430</i>		Matrix * <100 CPM	
Relinquished By	Date/Time	Received By	Date/Time	SE = Sediment DS = Drum Solid SO = Solid DI. = Drum Liquid SL = Sludge T = Tissue W = Water WI = Wine O = Oil L = Liquid A = Air V = Vegetation X = Other	
Relinquished By	Date/Time	Received By	Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process)			
		Disposed By		Date/Time	



STL

Sample Check-in List

Date/Time Received: 10 29 05 1430

Client: PLW SDG #: W04799 NA ☐ SAF #: S06-010 I06-001 NA ☐

Work Order Number: J5J250145

Chain of Custody # S06-010-168, 169 I06-001-100

Shipping Container ID: SML 550

Air Bill # _____

1. Custody Seals on shipping container intact? NA ☐ Yes ☒ No ☐
2. Custody Seals dated and signed? NA ☐ Yes ☒ No ☐
3. Chain of Custody record present? Yes ☒ No ☐
4. Cooler temperature: 7.0 for coliforms NA ☒ 5. Vermiculite/packing materials is NA ☐ Wet ☐ Dry ☒
6. Number of samples in shipping container: 17
7. Sample holding times exceeded? NA ☐ Yes ☐ No ☒
8. Samples have:
____ tape _____ hazard labels
☒ custody seals ☒ appropriate samples labels
9. Samples are:
☒ in good condition _____ leaking
____ broken _____ have air bubbles
(Only for samples requiring head space)
10. Sample pH taken? NA ☐ pH < 2 ☒ pH > 2 ☒ pH > 9 ☐
11. Sample Location, Sample Collector Listed? * Yes ☒ No ☐
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes ☐ No ☒
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [Signature] Date: 10 29 05

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

11/21/2005 8:30:23 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National Lab

BN I-129 Prp/SepRC5025

TB Gamma by LEPD

Pipet #: _____

Report Due: 12/08/2005

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 5299629

WATER

pCi/L

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 HM6AF-1-AE J5J200181-1-SAMP 10/19/2005 10:17	3910.60g,in	ITA4799 11/10/05		IFA	34.9	100	L4	1226	12/2/05	2
AmtRec: 20ML,2X500,2XLP,2X4LP #Containers: 7 Scr: Alpha: -2.25E-03 uCi/Sa Beta: 1.05E-03 uCi/Sa										
2 HM6AQ-1-AE J5J200181-2-SAMP 10/19/2005 08:15	3940.00g,in	ITA4812 11/10/05			35.7		12/2/05 RE 45 L5	1227	12/2/05	2
AmtRec: 20ML,2X500,2XLP,2X4LP #Containers: 7 Scr: Alpha: -9.69E-04 uCi/Sa Beta: -1.45E-03 uCi/Sa										
3 HM6AX-1-AE J5J200181-3-SAMP 10/19/2005 11:55	3921.10g,in	ITA4801 11/10/05			35.6		L4	1411	12/2/05	2
AmtRec: 20ML,2X500,2XLP,2X4LP #Containers: 7 Scr: Alpha: -2.49E-03 uCi/Sa Beta: 3.94E-04 uCi/Sa										
4 HM6CN-1-AE J5J200184-1-SAMP 10/19/2005 12:56	3830.60g,in	ITA4802 11/10/05			35.4		L5	1413	12/2/05	
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 Scr: Alpha: -2.61E-03 uCi/Sa Beta: 1.32E-03 uCi/Sa										
5 HM6CR-1-AE J5J200184-2-SAMP 10/19/2005 11:49	3852.00g,in	ITA4803 11/10/05			35.8		L4	1556	12/2/05	2
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 Scr: Alpha: 1.03E-03 uCi/Sa Beta: -1.32E-03 uCi/Sa										
6 HM6CV-1-AE J5J200184-3-SAMP 10/19/2005 10:49	3920.00g,in	ITA4813 11/10/05			35.9		L5	1557	12/2/05	2
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 Scr: Alpha: 2.32E-03 uCi/Sa Beta: -1.45E-03 uCi/Sa										
7 HM936-1-AF J5J210189-4-SAMP 10/20/2005 12:31	3974.30g,in	ITA4805 11/10/05			35.7		L4	1751	12/2/05	2
AmtRec: 20ML,500P,2XLP,2X4LP #Containers: 6 Scr: Alpha: -2.29E-04 uCi/Sa Beta: 5.02E-04 uCi/Sa										

11/21/2005 8:30:25 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National Lab

BN I-129 Prp/SepRC5025

TB Gamma by LEPD

Pipet #: _____

Report Due: 12/08/2005

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 5299629 WATER








pCi/L

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 HM936-1-AG-X J5J210189-4-DUP  10/20/2005 12:31	3836.60g,in	ITA4806 11/10/05		IFA	35.7	100	L5	1752	12/2/05 GAO	
AmtRec: 20ML,500P,2XLP,2X4LP #Containers: 6 Scr: Alpha: -2.29E-04 uCi/Sa Beta: 5.02E-04 uCi/Sa										
9 HNE5H-1-AE J5J220210-1-SAMP  10/21/2005 12:18	3894.00g,in	ITA4807 11/10/05			36.5		L4	2001		
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 Scr: Alpha: 7.41E-07 uCi/Sa Beta: 2.49E-06 uCi/Sa										
10 HNH1P-1-AE J5J250137-1-SAMP  10/24/2005 10:27	3897.80g,in	ITA4808 11/10/05			35.8		L5	2002		
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 Scr: Alpha: 1.44E-06 uCi/Sa Beta: 2.62E-06 uCi/Sa										
11 HNH1V-1-AE J5J250137-2-SAMP  10/24/2005 08:00	3919.50g,in	ITA4809 11/10/05			35.7		L4	2145		
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 Scr: Alpha: 2.08E-06 uCi/Sa Beta: -1.05E-06 uCi/Sa										
12 HNH1W-1-AE J5J250137-3-SAMP  10/24/2005 12:04	3940.00g,in	ITA4810 11/10/05			35.4		L5	2146		
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 Scr: Alpha: 1.92E-07 uCi/Sa Beta: 3.93E-07 uCi/Sa										
13 HNN7-1-AA-B J5J260000-629-BLK  10/20/2005 12:31	3870.10g,in	ITA4811 11/10/05			35.8		L4	2333		
AmtRec: #Containers: 1 Scr: Alpha: Beta:										
14 HNN7-1-AC-C J5J260000-629-LCS  10/20/2005 12:31	3846.20g,in	ISD0583 09/24/05,pd			40.2		L5	2334		
AmtRec: #Containers: 1 Scr: Alpha: Beta:										

11/21/2005 8:30:27 AM

Sample Preparation/Analysis

Balance Id:1120482733

BN I-129 Prp/SepRC5025

TB Gamma by LEPD

Pipet #: _____

Report Due: 12/08/2005

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 5299629

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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Comments:

pH neutral
@ prep by

All Clients for Batch:

384868, Pacific Northwest National Laboratories

Pacific Northwest National Lab, SS , 57671

HM6AF1AE-SAMP Constituent List:

I-129	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:
HNNE71AA-BLK:					
I-129	RDL:1.00E+00	pCi/L	LCL:	UCL:	RPD:
HNNE71AC-LCS:					
I-129	RDL:5	pCi/L	LCL:70	UCL:130	RPD:20

HM6AF1AE-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
HNNE71AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
HNNE71AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____

Date: _____

12/6/2005 8:39:03 AM

ICOC Fraction Transfer/Status Report

ByDate: 12/6/2004, 12/11/2005, Batch: '5299629', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting		Comments
5299629					
AC	CalcC	GiroirB	11/19/2005 10:17:08		
SC		wagarr	IsBatched	10/26/2005 4:15:29 PM	ICOC_RADCALC v4.8.15
SC		GiroirB	InPrep	11/19/2005 10:17:08 AM	RICH-RC-5016 REVISION 5
SC		GiroirB	Prep1C	11/21/2005 8:47:06 AM	RICH-RC-5016 REVISION 5
SC		NortonJ	InSep1	11/21/2005 10:30:42 AM	RICHRC5025 REVISION3
SC		NortonJ	Sep1C	12/2/2005 10:31:23 AM	RICHRC5025 REV3
SC		StringerR	InCnt1	12/2/2005 10:43:59 AM	RICH-RD-0007 REVISION 5
SC		StringerR	CalcC	12/3/2005 11:02:35 AM	RICH-RD-0007 REVISION 5
AC		GiroirB	11/21/2005 8:47:06		
AC		NortonJ	11/21/2005 10:30:42		
AC		NortonJ	12/2/2005 10:31:23		
AC		StringerR	12/2/2005 10:43:59		
AC		StringerR	12/3/2005 11:02:35		

AC: Accepting Entry; SC: Status Change

11/21/2005 2:04:50 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National LabAW Gamma PrpRC5017
TA Gamma by HPGE
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 12/08/2005

Sep1 DT/Tm Tech:

Batch: 5299583 WATER pCi/L

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: GiroirB

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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1 HNE6F-1-AE	2537.10g,in									
J5J220219-1-SAMP										
10/21/2005 10:55	AmtRec: 20ML,5XLP	#Containers: 6								
2 HNE6F-1-AF-X	2537.00g,in									
J5J220219-1-DUP										
10/21/2005 10:55	AmtRec: 20ML,5XLP	#Containers: 6								
3 HNH16-1-AE	2508.60g,in									
J5J250143-1-SAMP										
10/24/2005 11:17	AmtRec: 20ML,8XLP	#Containers: 9								
4 HNNA-1-AA-B	2522.60g,in									
J5J260000-583-BLK										
10/21/2005 10:55	AmtRec:	#Containers: 1								
5 HNNA-1-AC-C	2655.50g,in	QCAG1148								
J5J260000-583-LCS		08/22/05,pd								
10/21/2005 10:55	AmtRec:	#Containers: 1								

Comments: HM92P-SAMP "Comments: gamma; ct dup on dif det. Bg"
HMXGG-SAMP "Comments: gamma; ct dup on dif det. Bg"
HM1T7-SAMP "Comments: Beta; aliq reduced as determined by activity scn. Bg"
HNM47-BLK Comments

All Clients for Batch:

384868, Pacific Northwest National Laboratories

Pacific Northwest National Lab, HC , 57671

11/21/2005 2:04:51 PM

Sample Preparation/Analysis

Balance Id:1120482733

AW Gamma PrpRC5017

Pipet #: _____

TA Gamma by HPGE

Report Due: 12/08/2005

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 5299583

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
--------------------------------------	-------------------	-----------------------------	------------------------	--------------	--------------------	-------------------	----------------	---------------------------------	--------------------------	-----------

HNE6F-SAMP "Comments: gamma; ct dup on dif det. Bg"

HNE6F1AE-SAMP Constituent List:

Co-60	RDL:2.50E+01	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:1.50E+01	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:1.50E+01	pCi/L	LCL:70	UCL:130	RPD:20
Eu-152	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	Eu-154	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:
Eu-155	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Sb-125	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:						

HNNA1AA-BLK:

Co-60	RDL:2.50E+01	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:	Cs-137DA	RDL:1.50E+01	pCi/L	LCL:	UCL:	RPD:
Eu-152	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	Eu-154	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:
Eu-155	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:	K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Sb-125	RDL:5.00E+01	pCi/L	LCL:	UCL:	RPD:						

HNNA1AC-LCS:

Cs-137	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20
K-40	RDL:6	pCi/L	LCL:70	UCL:130	RPD:20	Ra-226	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20
RA-228	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20	RA-228DA	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20
U-238	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20						

HNE6F1AE-SAMP Calc Info:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HNNA1AA-BLK:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HNNA1AC-LCS:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

11/29/2005 1:42:31 PM

ICOC Fraction Transfer/Status Report

ByDate: 11/29/2004, 12/4/2005, Batch: '5299583', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5299583						
AC		CalcC	GiroirB	11/19/2005 10:17:03		
SC			wagarr	IsBatched	10/26/2005 4:15:29 PM	
SC			GiroirB	InPrep	11/19/2005 10:17:03 AM	
SC			GiroirB	Prep1C	11/21/2005 2:09:57 PM	
SC			ScottM	Prep2C	11/26/2005 11:24:05 AM	
SC			StringerR	InCnt1	11/26/2005 12:00:05 PM	
SC			BlackCL	CalcC	11/28/2005 9:15:46 AM	
AC			GiroirB	11/21/2005 2:09:57		
AC			ScottM	11/26/2005 11:24:05		
AC			StringerR	11/26/2005 12:00:05		
AC			BlackCL	11/28/2005 9:15:46		
					ICOC_RADCALC v4.8.15	
					RICH-RC-5017 REVISION 4	
					RICH-RC-5017 REVISION 4	
					RICH-RC-5017 REVISION 4	
					RICH-RD-0007 REVISION 5	
					RICH-RD-0007 REVISION 5	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

12/1/2005 6:30:36 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National LabAZ Gross Alpha PrpRC5014
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORDPipet #: 229

Report Due: 12/08/2005

Sep1 DT/Tm Tech:

Batch: 5299573

WATER

pCi/L

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 5299557 DHSS, 5299559 FPS5, 5299563 ARS6, 5299573 AZS7, 5299576 BCS8, 5299629 BNTB,

Prep Tech: GiroirB

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 HM6AF-1-AC J5J200181-1-SAMP 10/19/2005 10:17	81.10g,in									
<div>1527.0 200 10a 1415 12/4/05 R</div> <div>AmtRec: 20ML,2X500,2XLP,2X4LP #Containers: 7 Scr: Alpha: -2.25E-03 uCi/Sa Beta: 1.05E-03 uCi/Sa</div>										
2 HM6AQ-1-AC J5J200181-2-SAMP 10/19/2005 08:15	201.20g,in									
<div>0.3 10b</div> <div>AmtRec: 20ML,2X500,2XLP,2X4LP #Containers: 7 Scr: Alpha: -9.69E-04 uCi/Sa Beta: -1.45E-03 uCi/Sa</div>										
3 HM6AX-1-AC J5J200181-3-SAMP 10/19/2005 11:55	103.40g,in									
<div>34.6 10c</div> <div>AmtRec: 20ML,2X500,2XLP,2X4LP #Containers: 7 Scr: Alpha: -2.49E-03 uCi/Sa Beta: 3.94E-04 uCi/Sa</div>										
4 HM6CN-1-AC J5J200184-1-SAMP 10/19/2005 12:56	179.50g,in									
<div>44.6 10d</div> <div>AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 Scr: Alpha: -2.61E-03 uCi/Sa Beta: 1.32E-03 uCi/Sa</div>										
5 HM6CR-1-AC J5J200184-2-SAMP 10/19/2005 11:49	157.80g,in									
<div>51.8 10e</div> <div>AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 Scr: Alpha: 1.03E-03 uCi/Sa Beta: -1.32E-03 uCi/Sa</div>										
6 HM6CV-1-AC J5J200184-3-SAMP 10/19/2005 10:49	141.60g,in									
<div>47.5 10a 0930 10/6/05</div> <div>AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 Scr: Alpha: 2.32E-03 uCi/Sa Beta: -1.45E-03 uCi/Sa</div>										
7 HM936-1-AD J5J210189-4-SAMP 10/20/2005 12:31	197.00g,in									
<div>54.5 10b</div> <div>AmtRec: 20ML,500P,2XLP,2X4LP #Containers: 6 Scr: Alpha: -2.29E-04 uCi/Sa Beta: 5.02E-04 uCi/Sa</div>										

12/1/2005 6:30:39 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National LabAZ Gross Alpha PrpRC5014
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Pipet #: 229

Report Due: 12/08/2005

Sep1 DT/Tm Tech:

Batch: 5299573 WATER

pCi/L

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: GiroirB

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 HNE5H-1-AC J5J220210-1-SAMP 10/21/2005 12:18	141.60g,in				1.5 43.0 200		10C	0930 12/1/05		
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7				Scr:		Alpha: 7.41E-07 uCi/Sa		Beta: 2.49E-06 uCi/Sa		
9 HNE6F-1-AC J5J220219-1-SAMP 10/21/2005 10:55	168.80g,in				43.2		10D			
AmtRec: 20ML,5XLP #Containers: 6				Scr:		Alpha: 4.20E-07 uCi/Sa		Beta: 8.38E-07 uCi/Sa		
10 HNH1P-1-AC J5J250137-1-SAMP 10/24/2005 10:27	152.50g,in				41.8		10E			
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7				Scr:		Alpha: 1.44E-06 uCi/Sa		Beta: 2.62E-06 uCi/Sa		
11 HNH1V-1-AC J5J250137-2-SAMP 10/24/2005 08:00	199.30g,in				6.1		11A			
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7				Scr:		Alpha: 2.08E-06 uCi/Sa		Beta: -1.05E-06 uCi/Sa		
12 HNH1W-1-AC J5J250137-3-SAMP 10/24/2005 12:04	170.00g,in				33.7		11B			
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7				Scr:		Alpha: 1.92E-07 uCi/Sa		Beta: 3.93E-07 uCi/Sa		
13 HNH16-1-AC J5J250143-1-SAMP 10/24/2005 11:17	198.10g,in				32.9		11C			
AmtRec: 20ML,8XLP #Containers: 9				Scr:		Alpha: -1.15E-07 uCi/Sa		Beta: 1.83E-06 uCi/Sa		
14 HNH16-1-AG-X J5J250143-1-DUP 10/24/2005 11:17	204.30g,in				✓ 34.8 ✓		11D			
AmtRec: 20ML,8XLP #Containers: 9				Scr:		Alpha: -1.15E-07 uCi/Sa		Beta: 1.83E-06 uCi/Sa		

12/1/2005 6:30:40 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National LabAZ Gross Alpha PrpRC5014
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Pipet #: 229

Report Due: 12/08/2005

Sep1 DT/Tm Tech:

Batch: 5299573 WATER





pCi/L

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15HNN18-1-AD J5J250145-1-SAMP  10/24/2005 08:00	195.30g,in				1.5 0.1 300	122	0930	12/5/05		
		AmtRec: 20ML,500P,2XLP	#Containers: 4					Scr: Alpha: 2.21E-07 uCi/Sa		Beta: 2.68E-07 uCi/Sa
16HNN2C-1-AD J5J250145-2-SAMP  10/24/2005 13:51	143.60g,in				41.6	103				
		AmtRec: 20ML,500P,2XLP	#Containers: 4					Scr: Alpha: 6.43E-07 uCi/Sa		Beta: 7.44E-07 uCi/Sa
17HNM9P-1-AA-B J5J260000-573-BLK  10/24/2005 11:17	201.80g,in				0.1	122				
		AmtRec:	#Containers: 1					Scr: Alpha:		Beta:
18HNM9P-1-AC-C J5J260000-573-LCS  10/24/2005 11:17	203.00g,in		ASD3714 11/08/05,pd		0.4	10A	1304	12/5/05		
		AmtRec:	#Containers: 1					Scr: Alpha:		Beta:

Comments: HM6AF-SAMP "Comments: Alpha and Beta aliq reduced as determined by wt scn due to dis-solid content. Bg"
HM6AX-SAMP "Comments: Alpha and Beta aliq reduced as determined by wt scn due to dis-solid content. Bg"
HM6CN-SAMP "Comments: Alpha aliq reduced as determined by wt scn due to dis-solid content. Bg"
HM6CR-SAMP "Comments: Alpha aliq reduced as determined by wt scn due to dis-solid content. Bg"
HM6CV-SAMP "Comments: Alpha aliq reduced as determined by wt scn due to dis-solid content. Bg"
HNE5H-SAMP "Comments: Alpha and Beta aliq reduced as determined by wt scn due to dis-solid content. Bg"
HNE6F-SAMP "Comments: gamma; ct dup on dif det. Bg : Alpha aliq reduced as determined by wt scn due to dis-solid content. Bg"
HNN1P-SAMP Comments
HNN1W-SAMP "Comments: Alpha aliq reduced as determined by wt scn due to dis-solid content. Bg"
All Clients for HNN2C-SAMP "Comments: Alpha and Beta aliq reduced as determined by wt scn due to dis-solid content. Bg"
384868, Pa

12/7/2005 9:24:49 AM

ICOC Fraction Transfer/Status Report

ByDate: 12/7/2004, 12/12/2005, Batch: '5299573', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
5299573				
AC	CalcC	GiroirB	11/22/2005 7:30:11	
SC		wagarr	IsBatched 10/26/2005 4:15:29 PM	ICOC_RADCALC v4.8.15
SC		GiroirB	InPrep 11/22/2005 7:30:11 AM	RICH-RC-5014 REVISION 6
SC		GiroirB	Prep1C 12/1/2005 6:36:23 AM	RICH-RC-5014 REVISION 6
SC		ScottM	InPrep2 12/2/2005 7:27:52 AM	RICH-RC-5014 REVISION 6
SC		StringerR	InCnt1 12/3/2005 2:13:31 PM	RICH-RD-0003 REVISION 4
SC		BlackCL	CalcC 12/5/2005 1:26:43 PM	RICH-RD-0003 REVISION 4
AC		GiroirB	12/1/2005 6:36:23	
AC		ScottM	12/2/2005 7:27:52	
AC		StringerR	12/3/2005 2:13:31 PM	
AC		BlackCL	12/5/2005 1:26:43 PM	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

12/1/2005 6:30:41 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National Lab

BC Gross Beta PrpRC5014

S8 Gross Beta by GPC using Sr/Y-90 curve

Pipet #229

Report Due: 12/08/2005

51 CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 5299576 WATER

pCi/L

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: GiroirB

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 HM6AF-1-AD J5J200181-1-SAMP 10/19/2005 10:17	89.40g,in						28a	1218	12/4/05 R	
11597.5 200										
AmtRec: 20ML,2X500,2XLP,2X4LP #Containers: 7				Scr:		Alpha: -2.25E-03 uCi/Sa		Beta: 1.05E-03 uCi/Sa		
2 HM6AQ-1-AD J5J200181-2-SAMP 10/19/2005 08:15	199.40g,in				6.1		28b			
AmtRec: 20ML,2X500,2XLP,2X4LP #Containers: 7				Scr:		Alpha: -9.69E-04 uCi/Sa		Beta: -1.45E-03 uCi/Sa		
3 HM6AX-1-AD J5J200181-3-SAMP 10/19/2005 11:55	167.20g,in				87.8		28c			
AmtRec: 20ML,2X500,2XLP,2X4LP #Containers: 7				Scr:		Alpha: -2.49E-03 uCi/Sa		Beta: 3.94E-04 uCi/Sa		
4 HM6CN-1-AD J5J200184-1-SAMP 10/19/2005 12:56	197.50g,in				73.8		28d			
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7				Scr:		Alpha: -2.61E-03 uCi/Sa		Beta: 1.32E-03 uCi/Sa		
5 HM6CR-1-AD J5J200184-2-SAMP 10/19/2005 11:49	194.40g,in				82.3		31a			
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7				Scr:		Alpha: 1.03E-03 uCi/Sa		Beta: -1.32E-03 uCi/Sa		
6 HM6CV-1-AD J5J200184-3-SAMP 10/19/2005 10:49	192.30g,in				80.2		31b			
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7				Scr:		Alpha: 2.32E-03 uCi/Sa		Beta: -1.45E-03 uCi/Sa		
7 HM936-1-AE J5J210189-4-SAMP 10/20/2005 12:31	199.90g,in				78.0		31c			
AmtRec: 20ML,500P,2XLP,2X4LP #Containers: 6				Scr:		Alpha: -2.29E-04 uCi/Sa		Beta: 5.02E-04 uCi/Sa		

12/1/2005 6:30:42 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National Lab

BC Gross Beta PrpRC5014

S8 Gross Beta by GPC using Sr/Y-90 curve

5I CLIENT: HANFORD

Pipet #: 229

Report Due: 12/08/2005

Sep1 DT/Tm Tech:

Batch: 5299576 WATER

pCi/L

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: GiroirB

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 HNE5H-1-AD	181.00g,in									
J5J220210-1-SAMP										
10/21/2005 12:18										
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7										
Scr: Alpha: 7.41E-07 uCi/Sa								Beta: 2.49E-06 uCi/Sa		
9 HNE57-1-AC	197.30g,in									
J5J220217-2-SAMP										
10/21/2005 10:00										
AmtRec: 20ML,4XLP #Containers: 5										
Scr: Alpha: 5.31E-07 uCi/Sa								Beta: 2.38E-07 uCi/Sa		
10HNE6F-1-AD	193.40g,in									
J5J220219-1-SAMP										
10/21/2005 10:55										
AmtRec: 20ML,5XLP #Containers: 6										
Scr: Alpha: 4.20E-07 uCi/Sa								Beta: 8.38E-07 uCi/Sa		
11HNE1P-1-AD	203.70g,in									
J5J250137-1-SAMP										
10/24/2005 10:27										
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7										
Scr: Alpha: 1.44E-06 uCi/Sa								Beta: 2.62E-06 uCi/Sa		
12HNE1V-1-AD	201.40g,in									
J5J250137-2-SAMP										
10/24/2005 08:00										
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7										
Scr: Alpha: 2.08E-06 uCi/Sa								Beta: -1.05E-06 uCi/Sa		
13HNE1W-1-AD	196.90g,in									
J5J250137-3-SAMP										
10/24/2005 12:04										
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7										
Scr: Alpha: 1.92E-07 uCi/Sa								Beta: 3.93E-07 uCi/Sa		
14HNE16-1-AD	198.60g,in									
J5J250143-1-SAMP										
10/24/2005 11:17										
AmtRec: 20ML,8XLP #Containers: 9										
Scr: Alpha: -1.15E-07 uCi/Sa								Beta: 1.83E-06 uCi/Sa		

12/1/2005 6:30:43 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National Lab

BC Gross Beta PrpRC5014

S8 Gross Beta by GPC using Sr/Y-90 curve

Pipet #: 229

Report Due: 12/08/2005

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 5299576 WATER

pCi/L

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15HNN18-1-AE	199.20g,in									
J5J250145-1-SAMP										
10/24/2005 08:00		AmtRec: 20ML,500P,2XLP	#Containers: 4					Scr: Alpha: 2.21E-07 uCi/Sa		Beta: 2.68E-07 uCi/Sa
16HNN2C-1-AE	189.20g,in									
J5J250145-2-SAMP										
10/24/2005 13:51		AmtRec: 20ML,500P,2XLP	#Containers: 4					Scr: Alpha: 6.43E-07 uCi/Sa		Beta: 7.44E-07 uCi/Sa
17HNN2C-1-AF-X	186.80g,in									
J5J250145-2-DUP										
10/24/2005 13:51		AmtRec: 20ML,500P,2XLP	#Containers: 4					Scr: Alpha: 6.43E-07 uCi/Sa		Beta: 7.44E-07 uCi/Sa
18HNN9V-1-AA-B	199.00g,in									
J5J260000-576-BLK										
10/24/2005 13:51		AmtRec:	#Containers: 1					Scr: Alpha:		Beta:
19HNN9V-1-AC-C	194.40g,in									
J5J260000-576-LCS										
10/24/2005 13:51		AmtRec:	#Containers: 1					Scr: Alpha:		Beta:

Comments: HM6AF-SAMP "Comments: Alpha and Beta aliq reduced as determined by wt scn due to dis-solid content. Bg"
HM6AX-SAMP "Comments: Alpha and Beta aliq reduced as determined by wt scn due to dis-solid content. Bg"
HM6CN-SAMP "Comments: Alpha aliq reduced as determined by wt scn due to dis-solid content. Bg"
HM6CR-SAMP "Comments: Alpha aliq reduced as determined by wt scn due to dis-solid content. Bg"

PH Verified
See next pg for additional comments.

All Clients for Batch:

384868, Pacific Northwest National Laboratories

Pacific Northwest National Lab, SS , 57671

STL Richland

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2

Page 3

ISV - Insufficient Volume for Analysis

WO Cnt: 19

Richland Wa.

pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Prep_SamplePrep v4.8.14

12/1/2005 6:30:44 AM

Sample Preparation/Analysis

Balance Id:1120482733

BC Gross Beta PrpRC5014

Pipet #: 229

S8 Gross Beta by GPC using Sr/Y-90 curve

5I CLIENT: HANFORD

Report Due: 12/08/2005

Sep1 DT/Tm Tech:

Batch: 5299576

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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HM6CV-SAMP "Comments: Alpha aliq reduced as determined by wt scn due to dis-solid content. Bg"
HNE5H-SAMP "Comments: Alpha and Beta aliq reduced as determined by wt scn due to dis-solid content. Bg"
HNE6F-SAMP "Comments: gamma; ct dup on dif det. Bg : Alpha aliq reduced as determined by wt scn due to dis-solid content. Bg"
HNE6F-SAMP "Comments: gamma; ct dup on dif det. Bg : Alpha aliq reduced as determined by wt scn due to dis-solid content. Bg"
HNH1P-SAMP Comments
HNH1W-SAMP "Comments: Alpha aliq reduced as determined by wt scn due to dis-solid content. Bg"
HNH2C-SAMP "Comments: Alpha and Beta aliq reduced as determined by wt scn due to dis-solid content. Bg"

HM6AF1AD-SAMP Constituent List:

BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
HNM9V1AA-BLK:					
BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
HNM9V1AC-LCS:					
Sr-90	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

HM6AF1AD-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
HNM9V1AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
HNM9V1AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By _____

Date: _____

12/7/2005 9:25:21 AM

ICOC Fraction Transfer/Status Report

ByDate: 12/7/2004, 12/12/2005, Batch: '5299576', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
5299576						
AC	CalcC	GiroirB	11/22/2005 7:30:14			
SC		wagarr	IsBatched	10/26/2005 4:15:29 PM	ICOC_RADCALC v4.8.15	
SC		GiroirB	InPrep	11/22/2005 7:30:14 AM	RICH-RC-5014 REVISION 6	
SC		GiroirB	Prep1C	12/1/2005 6:36:28 AM	RICH-RC-5014 REVISION 6	
SC		ScottM	InPrep2	12/2/2005 7:27:44 AM	RICH-RC-5014 REVISION 6	
SC		ScottM	Prep2C	12/3/2005 2:07:09 PM	RICH-RC-5014 REVISION 6	
SC		StringerR	InCnt1	12/3/2005 2:13:48 PM	RICH-RD-0003 REVISION 4	
SC		BlackCL	CalcC	12/5/2005 12:48:03 PM	RICH-RD-0003 REVISION 4	
AC		GiroirB	12/1/2005 6:36:28			
AC		ScottM	12/2/2005 7:27:44			
AC		ScottM	12/3/2005 2:07:09 PM			
AC		StringerR	12/3/2005 2:13:48 PM			
AC		BlackCL	12/5/2005 12:48:03			
5321294						

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

11/4/2005 7:26:02 AM

Sample Preparation/Analysis

Balance Id:1120482733,01

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National Lab

CL Sr-90 Prp/SepRC5006(5071)

TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth

Pipet #: NA

Report Due: 12/08/2005

51 CLIENT: HANFORD

Sep1 DT/Tm Tech: 11-8-05 4:30 PM

Sep2 DT/Tm Tech: 11-18-05 11:39 AM

Batch: 5299626

WATER

pCi/L

PM, Quote: HC, 57671

SEQ Batch, Test: None All Tests: 5299563 ARS6, 5299573 AZS7, 5299576 BCS8, 5299583 AWTA, 5299626 CLTL,

Prep Tech: ,GiroirB

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 HNH16-1-AF J5J250143-1-SAMP	1005.40g,in	SRTB12755 11/01/05,pd	1.723 ✓ 2.0011 -8610	30	23.7	100	311	0935	11/10/05		
10/24/2005 11:17	AmtRec: 20ML,8XLP	#Containers: 9	Scr:	Alpha: -1.15E-07 uCi/Sa	Beta: 1.83E-06 uCi/Sa						
2 HNH16-1-AH-X J5J250143-1-DUP	986.20g,in	SRTB12756 11/01/05,pd	1.778 ✓ 2.0202 -8801	241			311	1007	11/10/05 R		
10/24/2005 11:17	AmtRec: 20ML,8XLP	#Containers: 9	Scr:	Alpha: -1.15E-07 uCi/Sa	Beta: 1.83E-06 uCi/Sa						
3 HNE5-1-AA-B J5J260000-626-BLK	1024.40g,in	SRTB12757 11/01/05,pd	1.750 ✓ 2.0393 -8581	240			311	1042	11/10/05 R		
10/24/2005 11:17	AmtRec:	#Containers: 1	Scr:	Alpha:	Beta:						
4 HNE5-1-AC-C J5J260000-626-LCS	922.50g,in	SRSG1142 09/14/05,pd	1.741 ✓ 2.0228 -8607	22.3			311	1140	11/10/05 L		
10/24/2005 11:17	AmtRec:	#Containers: 1	Scr:	Alpha:	Beta:						

11/4/2005 7:26:05 AM

Sample Preparation/Analysis

Balance Id:1120482733

CL Sr-90 Prp/SepRC5006(5071)

Pipet #: _____

TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth

Report Due: 12/08/2005

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 5299626

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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Comments:

pH verified

All Clients for Batch:

384868, Pacific Northwest National Laboratories

Pacific Northwest National Lab, HC , 57671

HNH161AF-SAMP Constituent List:

Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20
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HNNE51AA-BLK:

Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:	UCL:	RPD:
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HNNE51AC-LCS:

Sr-85	RDL:	pCi/L	LCL:20	UCL:105	RPD:20	Sr-90	RDL:2	pCi/L	LCL:70	UCL:130	RPD:20
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HNH161AF-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
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HNNE51AA-BLK:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
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HNNE51AC-LCS:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
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Approved By _____

Date: _____

11/23/2005 6:51:34 AM

ICOC Fraction Transfer/Status Report

ByDate: 11/23/2004, 11/28/2005, Batch: '5299626', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting		Comments
5299626					
AC		CalcC	GiroirB	11/3/2005 6:20:39	
SC			wagarr	IsBatched	10/26/2005 4:15:29 PM
SC			GiroirB	InPrep	11/3/2005 6:20:39 AM
SC			GiroirB	Prep1C	11/4/2005 7:30:00 AM
SC			FABREM	InSep1	11/4/2005 8:36:12 AM
SC			FABREM	Sep1C	11/10/2005 8:50:57 AM
SC			StringerR	InCnt1	11/10/2005 9:00:35 AM
SC			DAWKINSO	Cnt1C	11/10/2005 9:50:14 PM
SC			FABREM	InSep2	11/12/2005 6:52:36 PM
SC			FABREM	Sep2C	11/18/2005 7:19:01 PM
SC			DAWKINSO	InCnt2	11/18/2005 8:41:04 PM
SC			DAWKINSO	CalcC	11/20/2005 5:44:55 PM
AC			GiroirB	11/4/2005 7:30:00	
AC			FABREM	11/4/2005 8:36:12	
AC			FABREM	11/10/2005 8:50:57	
AC			StringerR	11/10/2005 9:00:35	
AC			DAWKINSO	11/10/2005 9:50:14	
AC			FABREM	11/12/2005 6:52:36	
AC			FABREM	11/18/2005 7:19:01	
AC			DAWKINSO	11/18/2005 8:41:04	
AC			DAWKINSO	11/20/2005 5:44:55	
					ICOC_RADCALC v4.8.15
					RICH-RC-5016 REVISION 5
					RICH-RC-5016 REVISION 5
					RICH-RC-5006 REVISION 6
					RICH-RC-5006 REVISION 6
					RICH-RD-0007 REVISION 5
					RICH-RD-5071 REVISION 4
					RICH-RC-5071 REVISION 4
					RICH-RD-0003 REVISION 4
					RICH-RD-0003 REVISION 4

AC: Accepting Entry; SC: Status Change

STL Richland
Richland Wa.

10/26/2005 4:14:41 PM

Sample Preparation/Analysis

Balance Id:

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National Lab5S C-14 Prp/SepRC5022
S3 Carbon-14 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 12/08/2005 W04799

Sep1 DT/Tm Tech:

Batch: 5299630 WATER pCi/L

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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1 HNE57-1-AD

J5J220217-2-SAMP

10/21/2005 10:00	AmtRec: 20ML,4XLP	#Containers: 5	Scr:	Alpha:	Beta:
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2 HNE57-1-AE-X

J5J220217-2-DUP

10/21/2005 10:00	AmtRec: 20ML,4XLP	#Containers: 5	Scr:	Alpha:	Beta:
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3 HNNE9-1-AA-B

J5J260000-630-BLK

10/21/2005 10:00	AmtRec:	#Containers: 1	Scr:	Alpha:	Beta:
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4 HNNE9-1-AC-C

J5J260000-630-LCS

10/21/2005 10:00	AmtRec:	#Containers: 1	Scr:	Alpha:	Beta:
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5 HNNE9-1-AD-BN

J5J260000-630-IBLK

10/21/2005 10:00	AmtRec:	#Containers: 1	Scr:	Alpha:	Beta:
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Comments:

All Clients for Batch:

384868, Pacific Northwest National Laboratories Pacific Northwest National Lab, HC , 57671

HNE571AD-SAMP Constituent List:

C-14 RDL:2.00E+02 pCi/L LCL:70 UCL:130 RPD:20

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1

ISV - Insufficient Volume for Analysis

WO Cnt: 5

Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ICOC v4.8.15

10/26/2005 4:14:42 PM

Sample Preparation/Analysis

Balance Id:

5S C-14 Prp/SepRC5022
S3 Carbon-14 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 12/08/2005

Sep1 DT/Tm Tech:

Batch: 5299630

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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HNNE91AA-BLK:

C-14 RDL:2.00E+02 pCi/L LCL: UCL: RPD:

HNNE91AC-LCS:

C-14 RDL:200 pCi/L LCL:70 UCL:130 RPD:20

HNNE91AD-IBLK:

C-14 RDL:2.00E+02 pCi/L LCL: UCL: RPD:

HNE571AD-SAMP Calc Info:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HNNE91AA-BLK:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HNNE91AC-LCS:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HNNE91AD-IBLK:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

12/9/2005 9:42:46 AM

ICOC Fraction Transfer/Status Report

ByDate: 12/9/2004, 12/14/2005, Batch: '5299630', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
5299630				
AC	CalcC	McDowellID	11/29/2005 8:27:26	
SC		wagarr	IsBatched 10/26/2005 4:15:29 PM	ICOC_RADCALC v4.8.15
SC		McDowellID	InSep1 11/29/2005 8:27:26 AM	RICH-RC-5022 REVISION 3
SC		McDowellID	Sep1C 12/7/2005 3:18:10 PM	RICH-RC-5022 REVISION 3
SC		StringerR	InCnt1 12/7/2005 3:24:20 PM	RICH-RD-0001 REVISION 3
SC		BlackCL	CalcC 12/8/2005 8:12:46 AM	RICH-RD-0001 REVISION 3
AC		McDowellID	12/7/2005 3:18:10 PM	
AC		StringerR	12/7/2005 3:24:20 PM	
AC		BlackCL	12/8/2005 8:12:46	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

11/30/2005 1:06:37 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National LabFP Tc-99 Prp/SepRC5065
S5 Technetium-99 by Liquid Scint
SI CLIENT: HANFORD

Pipet #: _____

Report Due: 12/08/2005

Sep1 DT/Tm Tech:

Batch: 5299559 WATER








pCi/L

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 HM6AF-1-AF J5J200181-1-SAMP  10/19/2005 10:17			124.20g,in	124.20g						
AmtRec: 20ML,2X500,2XLP,2X4LP #Containers: 7 Scr: Alpha: -2.25E-03 uCi/Sa Beta: 1.05E-03 uCi/Sa										
2 HM6AQ-1-AF J5J200181-2-SAMP  10/19/2005 08:15			123.90g,in	123.90g						
AmtRec: 20ML,2X500,2XLP,2X4LP #Containers: 7 Scr: Alpha: -9.69E-04 uCi/Sa Beta: -1.45E-03 uCi/Sa										
3 HM6AX-1-AF J5J200181-3-SAMP  10/19/2005 11:55			124.90g,in	124.90g						
AmtRec: 20ML,2X500,2XLP,2X4LP #Containers: 7 Scr: Alpha: -2.49E-03 uCi/Sa Beta: 3.94E-04 uCi/Sa										
4 HM6CN-1-AF J5J200184-1-SAMP  10/19/2005 12:56			126.60g,in	126.60g						
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 Scr: Alpha: -2.61E-03 uCi/Sa Beta: 1.32E-03 uCi/Sa										
5 HM6CN-1-AH-X J5J200184-1-DUP  10/19/2005 12:56			125.10g,in	125.10g						
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 Scr: Alpha: -2.61E-03 uCi/Sa Beta: 1.32E-03 uCi/Sa										
6 HM6CR-1-AF J5J200184-2-SAMP  10/19/2005 11:49			125.60g,in	125.60g						
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 Scr: Alpha: 1.03E-03 uCi/Sa Beta: -1.32E-03 uCi/Sa										
7 HM6CR-1-AH-S J5J200184-2-MS  10/19/2005 11:49			129.80g,in	129.80g	TCSG1358 09/30/05,pd					
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 Scr: Alpha: 1.03E-03 uCi/Sa Beta: -1.32E-03 uCi/Sa										

11/30/2005 1:06:38 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National LabFP Tc-99 Prp/SepRC5065
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 12/08/2005

Sep1 DT/Tm Tech:

Batch: 5299559 WATER








pCi/L

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 HM6CV-1-AF J5J200184-3-SAMP  10/19/2005 10:49			132.10g,in	132.10g						
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 Scr: Alpha: 2.32E-03 uCi/Sa Beta: -1.45E-03 uCi/Sa										
9 HNE5H-1-AF J5J220210-1-SAMP  10/21/2005 12:18			123.70g,in	123.70g						
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 Scr: Alpha: 7.41E-07 uCi/Sa Beta: 2.49E-06 uCi/Sa										
10HNE53-1-AA J5J220217-1-SAMP  10/21/2005 10:55			125.90g,in	125.90g						
AmtRec: 20ML,500P #Containers: 2 Scr: Alpha: 2.79E-08 uCi/Sa Beta: 9.55E-08 uCi/Sa										
11HNH1P-1-AF J5J250137-1-SAMP  10/24/2005 10:27			127.40g,in	127.40g						
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 Scr: Alpha: 1.44E-06 uCi/Sa Beta: 2.62E-06 uCi/Sa										
12HNH1V-1-AF J5J250137-2-SAMP  10/24/2005 08:00			124.80g,in	124.80g						
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 Scr: Alpha: 2.08E-06 uCi/Sa Beta: -1.05E-06 uCi/Sa										
13HNH1W-1-AF J5J250137-3-SAMP  10/24/2005 12:04			126.70g,in	126.70g						
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 Scr: Alpha: 1.92E-07 uCi/Sa Beta: 3.93E-07 uCi/Sa										
14HNM7J-1-AA-B J5J260000-559-BLK  10/19/2005 12:56			128.20g,in	128.20g						
AmtRec: #Containers: 1 Scr: Alpha: Beta:										

11/30/2005 1:06:40 PM

Sample Preparation/Analysis

Balance Id:1120482733

FP Tc-99 Prp/SepRC5065

Pipet #: _____

S5 Technetium-99 by Liquid Scint

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:

Report Due: 12/08/2005

Batch: 5299559

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GiroirB

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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15HNM7J-1-AC-C

126.10g,in

126.10g

TCSE1793

J5J260000-559-LCS

07/18/05,pd



10/19/2005 12:56

AmtRec:

#Containers: 1

Scr:

Alpha:

Beta:

16HNM7J-1-AD-BN

J5J260000-559-IBLK



10/19/2005 12:56

AmtRec:

#Containers: 1

Scr:

Alpha:

Beta:

17HNM7J-1-AE-BN

J5J260000-559-IBLK



10/19/2005 12:56

AmtRec:

#Containers: 1

Scr:

Alpha:

Beta:

Comments:

ph verified

All Clients for Batch:

384868, Pacific Northwest National Laboratories

Pacific Northwest National Lab, SS , 57671

HM6AF1AF-SAMP Constituent List:

Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20

HM6CR1AH-MS:

HNM7J1AA-BLK:

Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

HNM7J1AC-LCS:

Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20

HNM7J1AD-IBLK:

Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

HNM7J1AE-IBLK:

Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

HM6AF1AF-SAMP Calc Info:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 3

ISV - Insufficient Volume for Analysis

WO Cnt: 17

Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Prep_SamplePrep v4.8.14

12/19/2005 3:25:06 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/19/2004, 12/24/2005, Batch: '5299559', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting		Comments
5299559					
AC	CalcC	GiroirB	11/22/2005 7:35:20		
SC		wagarr	IsBatched	10/26/2005 4:15:29 PM	ICOC_RADCALC v4.8.15
SC		GiroirB	InPrep	11/22/2005 7:35:20 AM	RICH-RC-5016 REVISION 5
SC		GiroirB	Prep1C	11/30/2005 1:09:11 PM	RICH-RC-5016 REVISION 5
SC		RiceL	Sep1C	12/16/2005 12:27:46 PM	RICHRC5065 REVISION 5
SC		BlackCL	InCnt1	12/16/2005 2:21:15 PM	RICH-RD-0001 REVISION 3
SC		StringerR	CalcC	12/18/2005 2:14:43 PM	RICH-RD-0001 REVISION 3
AC		GiroirB	11/30/2005 1:09:11		
AC		RiceL	12/16/2005 12:27:46		
AC		BlackCL	12/16/2005 2:21:15		
AC		StringerR	12/18/2005 2:14:43		

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

10/26/2005 4:14:31 PM

Sample Preparation/Analysis

Balance Id:

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National LabAR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 12/08/2005

W04799

Sep1 DT/Tm Tech:

Batch: 5299563

WATER









pCi/L

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:

								
Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 HM6AF-1-AA								
J5J200181-1-SAMP								
								
10/19/2005 10:17								
AmtRec: 20ML,2X500,2XLP,2X4LP				#Containers: 7		Scr:	Alpha: -2.25E-03 uCi/Sa	Beta: 1.05E-03 uCi/Sa
2 HM6AQ-1-AA								
J5J200181-2-SAMP								
								
10/19/2005 08:15								
AmtRec: 20ML,2X500,2XLP,2X4LP				#Containers: 7		Scr:	Alpha: -9.69E-04 uCi/Sa	Beta: -1.45E-03 uCi/Sa
3 HM6AX-1-AA								
J5J200181-3-SAMP								
								
10/19/2005 11:55								
AmtRec: 20ML,2X500,2XLP,2X4LP				#Containers: 7		Scr:	Alpha: -2.49E-03 uCi/Sa	Beta: 3.94E-04 uCi/Sa
4 HM6CN-1-AA								
J5J200184-1-SAMP								
								
10/19/2005 12:56								
AmtRec: 20ML,2X500P,2XLP,2X4LP				#Containers: 7		Scr:	Alpha: -2.61E-03 uCi/Sa	Beta: 1.32E-03 uCi/Sa
5 HM6CR-1-AA								
J5J200184-2-SAMP								
								
10/19/2005 11:49								
AmtRec: 20ML,2X500P,2XLP,2X4LP				#Containers: 7		Scr:	Alpha: 1.03E-03 uCi/Sa	Beta: -1.32E-03 uCi/Sa
6 HM6CV-1-AA								
J5J200184-3-SAMP								
								
10/19/2005 10:49								
AmtRec: 20ML,2X500P,2XLP,2X4LP				#Containers: 7		Scr:	Alpha: 2.32E-03 uCi/Sa	Beta: -1.45E-03 uCi/Sa
7 HM93M-1-AA								
J5J210189-1-SAMP								
								
10/20/2005 10:11								
AmtRec: 20ML,LP				#Containers: 2		Scr:	Alpha: 9.00E-05 uCi/Sa	Beta: 2.86E-04 uCi/Sa

10/26/2005 4:14:32 PM

Sample Preparation/Analysis

Balance Id:

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National LabAR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 12/08/2005

Sep1 DT/Tm Tech:

Batch: 5299563 WATER

pCi/L








PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:



Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 HM931-1-AA								
J5J210189-2-SAMP								
								
10/20/2005 10:46		AmtRec: 20ML,LP	#Containers: 2			Scr: Alpha: -1.84E-04 uCi/Sa	Beta: 2.14E-04 uCi/Sa	
9 HM935-1-AA								
J5J210189-3-SAMP								
								
10/20/2005 11:11		AmtRec: 20ML,LP	#Containers: 2			Scr: Alpha: 2.64E-04 uCi/Sa	Beta: -3.10E-04 uCi/Sa	
10HM936-1-AA								
J5J210189-4-SAMP								
								
10/20/2005 12:31		AmtRec: 20ML,500P,2XLP,2X4LP	#Containers: 6			Scr: Alpha: -2.29E-04 uCi/Sa	Beta: 5.02E-04 uCi/Sa	
11HNE5H-1-AA								
J5J220210-1-SAMP								
								
10/21/2005 12:18		AmtRec: 20ML,2X500P,2XLP,2X4LP	#Containers: 7			Scr: Alpha:	Beta:	
12HNE57-1-AA								
J5J220217-2-SAMP								
								
10/21/2005 10:00		AmtRec: 20ML,4XLP	#Containers: 5			Scr: Alpha:	Beta:	
13HNE6F-1-AA								
J5J220219-1-SAMP								
								
10/21/2005 10:55		AmtRec: 20ML,5XLP	#Containers: 6			Scr: Alpha:	Beta:	
14HNNH1P-1-AA								
J5J250137-1-SAMP								
								
10/24/2005 10:27		AmtRec: 20ML,2X500P,2XLP,2X4LP	#Containers: 7			Scr: Alpha:	Beta:	

10/26/2005 4:14:32 PM

Sample Preparation/Analysis

Balance Id:

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National LabAR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 12/08/2005

Sep1 DT/Tm Tech:

Batch: 5299563 WATER

pCi/L








PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:



Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15HNNH1P-1-AJ-X								
J5J250137-1-DUP								
								
10/24/2005 10:27			AmtRec: 20ML,2X500P,2XLP,2X4LP		#Containers: 7	Scr:	Alpha:	Beta:
16HNNH1V-1-AA								
J5J250137-2-SAMP								
								
10/24/2005 08:00			AmtRec: 20ML,2X500P,2XLP,2X4LP		#Containers: 7	Scr:	Alpha:	Beta:
17HNNH1W-1-AA								
J5J250137-3-SAMP								
								
10/24/2005 12:04			AmtRec: 20ML,2X500P,2XLP,2X4LP		#Containers: 7	Scr:	Alpha:	Beta:
18HNNH16-1-AA								
J5J250143-1-SAMP								
								
10/24/2005 11:17			AmtRec: 20ML,8XLP		#Containers: 9	Scr:	Alpha:	Beta:
19HNNH18-1-AA								
J5J250145-1-SAMP								
								
10/24/2005 08:00			AmtRec: 20ML,500P,2XLP		#Containers: 4	Scr:	Alpha:	Beta:
20HNNH2C-1-AA								
J5J250145-2-SAMP								
								
10/24/2005 13:51			AmtRec: 20ML,500P,2XLP		#Containers: 4	Scr:	Alpha:	Beta:
21HNM70-1-AA-B								
J5J260000-563-BLK								
								
10/24/2005 10:27			AmtRec:		#Containers: 1	Scr:	Alpha:	Beta:

10/26/2005 4:14:33 PM

Sample Preparation/Analysis

Balance Id:

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 12/08/2005

Sep1 DT/Tm Tech:

Batch: 5299563

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
22HNM70-1-AC-C								
J5J260000-563-LCS								
10/24/2005 10:27		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
23HNM70-1-AD-BX								
J5J260000-563-MBLK								
10/24/2005 10:27		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
24HNM70-1-AE-CM								
J5J260000-563-MLCS								
10/24/2005 10:27		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
25HNM70-1-AF-BN								
J5J260000-563-IBLK								
10/24/2005 10:27		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
26HNM70-1-AG-BN								
J5J260000-563-IBLK								
10/24/2005 10:27		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
27HNM70-1-AH-BN								
J5J260000-563-IBLK								
10/24/2005 10:27		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
28HNM70-1-AJ-BN								
J5J260000-563-IBLK								
10/24/2005 10:27		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

10/26/2005 4:14:34 PM

Sample Preparation/Analysis

Balance Id:

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 12/08/2005

Sep1 DT/Tm Tech:

Batch: 5299563

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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Comments:

All Clients for Batch:

384868, Pacific Northwest National Laboratories Pacific Northwest National Lab, SS , 57671

HM6AF1AA-SAMP Constituent List:

H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
HNM701AA-BLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
HNM701AC-LCS:					
H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
HNM701AD-MBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
HNM701AE-MLCS:					
H-3	RDL:400	pCi/L	LCL:70	UCL:130	RPD:20
HNM701AF-IBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
HNM701AG-IBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
HNM701AH-IBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:
HNM701AJ-IBLK:					
H-3	RDL:400	pCi/L	LCL:	UCL:	RPD:

HM6AF1AA-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
HNM701AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
HNM701AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
HNM701AD-MBLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
HNM701AE-MLCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
HNM701AF-IBLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
HNM701AG-IBLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

10/26/2005 4:14:34 PM

Sample Preparation/Analysis

Balance Id: _____

AR H-3 Prp/SepRC5007
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 12/08/2005

Sep1 DT/Tm Tech: _____

Batch: 5299563

pCi/L

Sep2 DT/Tm Tech: _____

SEQ Batch, Test: None

Prep Tech: _____



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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HNM701AH-IBLK:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HNM701AJ-IBLK:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

12/13/2005 2:44:21 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/13/2004, 12/18/2005, Batch: '5299563', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
5299563				
AC	CalcC	LEGLERM	12/9/2005 3:06:14 PM	
SC		wagarr	IsBatched 10/26/2005 4:15:29 PM	ICOC_RADCALC v4.8.15
SC		LEGLERM	InSep1 12/9/2005 3:06:14 PM	RICH-RC-5007 REVISION 6
SC		LEGLERM	Sep1C 12/9/2005 9:15:22 PM	RICH-RC-5007 REVISION 6
SC		BlackCL	CalcC 12/13/2005 9:09:25 AM	RICH-RD-0001 REVISION 3
AC		LEGLERM	12/9/2005 9:15:22 PM	
AC		BlackCL	12/13/2005 9:09:25	

AC: Accepting Entry; SC: Status Change

STL Richland

Richland Wa.

12/8/2005 11:08:42 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National LabDH UNat_Laser PrpRC5015
SS Total Uranium by KPA
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 12/08/2005

Sep1 DT/Tm Tech:

Batch: 5299557 WATER

ug/L









PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: GiroirB

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 HM6AF-1-AG J5J200181-1-SAMP 10/19/2005 10:17	10.00m	23.40g,in						
AmtRec: 20ML,2X500,2XLP,2X4LP #Containers: 7 Scr: Alpha: -2.25E-03 uCi/Sa Beta: 1.05E-03 uCi/Sa								
2 HM6AF-2-AG J5J200181-1-SAMP 10/19/2005 10:17								
AmtRec: 20ML,2X500,2XLP,2X4LP #Containers: 7 Scr: Alpha: -2.25E-03 uCi/Sa Beta: 1.05E-03 uCi/Sa								
3 HM6AQ-1-AG J5J200181-2-SAMP 10/19/2005 08:15		24.50g,in						
AmtRec: 20ML,2X500,2XLP,2X4LP #Containers: 7 Scr: Alpha: -9.69E-04 uCi/Sa Beta: -1.45E-03 uCi/Sa								
4 HM6AQ-2-AG J5J200181-2-SAMP 10/19/2005 08:15								
AmtRec: 20ML,2X500,2XLP,2X4LP #Containers: 7 Scr: Alpha: -9.69E-04 uCi/Sa Beta: -1.45E-03 uCi/Sa								
5 HM6AX-1-AG J5J200181-3-SAMP 10/19/2005 11:55		25.40g,in						
AmtRec: 20ML,2X500,2XLP,2X4LP #Containers: 7 Scr: Alpha: -2.49E-03 uCi/Sa Beta: 3.94E-04 uCi/Sa								
6 HM6AX-2-AG J5J200181-3-SAMP 10/19/2005 11:55								
AmtRec: 20ML,2X500,2XLP,2X4LP #Containers: 7 Scr: Alpha: -2.49E-03 uCi/Sa Beta: 3.94E-04 uCi/Sa								
7 HM6CN-1-AG J5J200184-1-SAMP 10/19/2005 12:56		23.40g,in						
AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 Scr: Alpha: -2.61E-03 uCi/Sa Beta: 1.32E-03 uCi/Sa								

12/8/2005 11:08:42 AM		Sample Preparation/Analysis				Balance Id: _____	
384868, Pacific Northwest National Laboratories , Pacific Northwest National Lab		DH UNat_Laser PrpRC5015 SS Total Uranium by KPA 5I CLIENT: HANFORD				Pipet #: _____	
Report Due: 12/08/2005						Sep1 DT/Tm Tech: _____	
Batch: 5299557 WATER ug/L		PM, Quote: SS , 57671				Sep2 DT/Tm Tech: _____	
SEQ Batch, Test: None						Prep Tech: _____	
							
Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date
<div style="border-bottom: 1px dashed black; padding-bottom: 5px;"> 8 HM6CN-2-AG J5J200184-1-SAMP <div style="display: flex; justify-content: space-between;"> <div>  </div> <div> 10/19/2005 12:56 AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 </div> <div> Scr: Alpha: -2.61E-03 uCi/Sa Beta: 1.32E-03 uCi/Sa </div> </div> </div>							
<div style="border-bottom: 1px dashed black; padding-bottom: 5px;"> 9 HM6CR-1-AG 24.20g,in J5J200184-2-SAMP <div style="display: flex; justify-content: space-between;"> <div>  </div> <div> 10/19/2005 11:49 AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 </div> <div> Scr: Alpha: 1.03E-03 uCi/Sa Beta: -1.32E-03 uCi/Sa </div> </div> </div>							
<div style="border-bottom: 1px dashed black; padding-bottom: 5px;"> 10HM6CR-2-AG J5J200184-2-SAMP <div style="display: flex; justify-content: space-between;"> <div>  </div> <div> 10/19/2005 11:49 AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 </div> <div> Scr: Alpha: 1.03E-03 uCi/Sa Beta: -1.32E-03 uCi/Sa </div> </div> </div>							
<div style="border-bottom: 1px dashed black; padding-bottom: 5px;"> 11HM6CV-1-AG 26.00g,in J5J200184-3-SAMP <div style="display: flex; justify-content: space-between;"> <div>  </div> <div> 10/19/2005 10:49 AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 </div> <div> Scr: Alpha: 2.32E-03 uCi/Sa Beta: -1.45E-03 uCi/Sa </div> </div> </div>							
<div style="border-bottom: 1px dashed black; padding-bottom: 5px;"> 12HM6CV-2-AG J5J200184-3-SAMP <div style="display: flex; justify-content: space-between;"> <div>  </div> <div> 10/19/2005 10:49 AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 </div> <div> Scr: Alpha: 2.32E-03 uCi/Sa Beta: -1.45E-03 uCi/Sa </div> </div> </div>							
<div style="border-bottom: 1px dashed black; padding-bottom: 5px;"> 13HNE5H-1-AG 25.20g,in J5J220210-1-SAMP <div style="display: flex; justify-content: space-between;"> <div>  </div> <div> 10/21/2005 12:18 AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 </div> <div> Scr: Alpha: 7.41E-07 uCi/Sa Beta: 2.49E-06 uCi/Sa </div> </div> </div>							
<div style="border-bottom: 1px dashed black; padding-bottom: 5px;"> 14HNE5H-1-AH-S 26.50g,in UNSF2779 J5J220210-1-MS 11/29/05,pd <div style="display: flex; justify-content: space-between;"> <div>  </div> <div> 10/21/2005 12:18 AmtRec: 20ML,2X500P,2XLP,2X4LP #Containers: 7 </div> <div> Scr: Alpha: 7.41E-07 uCi/Sa Beta: 2.49E-06 uCi/Sa </div> </div> </div>							
<div style="display: flex; justify-content: space-between; font-size: small;"> <div>STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2</div> <div>ISV - Insufficient Volume for Analysis</div> <div>WO Cnt: 14</div> </div> <div style="display: flex; justify-content: space-between; font-size: x-small; margin-top: 5px;"> <div>Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added</div> <div>ICOC v4.8.16</div> </div>							

12/8/2005 11:08:43 AM

Sample Preparation/Analysis

Balance Id:

384868, Pacific Northwest National Laboratories ,
Pacific Northwest National Lab

DH UNat_Laser PrpRC5015

SS Total Uranium by KPA

5I CLIENT: HANFORD

Pipet #: _____

Report Due: 12/08/2005

Sep1 DT/Tm Tech:

Batch: 5299557

WATER

ug/L







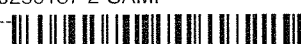
PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:



Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15HNE5H-2-AG								
J5J220210-1-SAMP								
								
10/21/2005 12:18			AmtRec: 20ML,2X500P,2XLP,2X4LP	#Containers: 7		Scr: Alpha: 7.41E-07 uCi/Sa	Beta: 2.49E-06 uCi/Sa	
16HNE5H-2-AH-S								
J5J220210-1-MS								
								
10/21/2005 12:18			AmtRec: 20ML,2X500P,2XLP,2X4LP	#Containers: 7		Scr: Alpha: 7.41E-07 uCi/Sa	Beta: 2.49E-06 uCi/Sa	
17HNE5H-2-AG								
J5J250137-1-SAMP								
								
10/24/2005 10:27			AmtRec: 20ML,2X500P,2XLP,2X4LP	#Containers: 7		Scr: Alpha: 1.44E-06 uCi/Sa	Beta: 2.62E-06 uCi/Sa	
18HNE5H-2-AH-X								
J5J250137-1-DUP								
								
10/24/2005 10:27			AmtRec: 20ML,2X500P,2XLP,2X4LP	#Containers: 7		Scr: Alpha: 1.44E-06 uCi/Sa	Beta: 2.62E-06 uCi/Sa	
19HNE5H-2-AG								
J5J250137-1-SAMP								
								
10/24/2005 10:27			AmtRec: 20ML,2X500P,2XLP,2X4LP	#Containers: 7		Scr: Alpha: 1.44E-06 uCi/Sa	Beta: 2.62E-06 uCi/Sa	
20HNE5H-2-AH-X								
J5J250137-1-DUP								
								
10/24/2005 10:27			AmtRec: 20ML,2X500P,2XLP,2X4LP	#Containers: 7		Scr: Alpha: 1.44E-06 uCi/Sa	Beta: 2.62E-06 uCi/Sa	
21HNE5H-2-AG								
J5J250137-2-SAMP								
								
10/24/2005 08:00			AmtRec: 20ML,2X500P,2XLP,2X4LP	#Containers: 7		Scr: Alpha: 2.08E-06 uCi/Sa	Beta: -1.05E-06 uCi/Sa	

STL Richland

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2

Page 3









ISV - Insufficient Volume for Analysis

WO Cnt: 21

Richland Wa.

pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ICOC v4.8.16

12/8/2005 11:08:44 AM		Sample Preparation/Analysis				Balance Id:	
384868, Pacific Northwest National Laboratories , Pacific Northwest National Lab		DH UNat_Laser PrpRC5015 SS Total Uranium by KPA 5I CLIENT: HANFORD				Pipet #: _____	
Report Due: 12/08/2005						Sep1 DT/Tm Tech:	
Batch: 5299557 WATER ug/L		PM, Quote: HC , 57671				Sep2 DT/Tm Tech:	
SEQ Batch, Test: None						Prep Tech:	
							
Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date
Comments:							
22HNNH1V-2-AG							
J5J250137-2-SAMP							
							
10/24/2005 08:00		AmtRec: 20ML,2X500P,2XLP,2X4LP	#Containers: 7			Scr: Alpha: 2.08E-06 uCi/Sa Beta: -1.05E-06 uCi/Sa	
23HNNH1W-1-AG							
J5J250137-3-SAMP							
							
10/24/2005 12:04	25.00g,in	AmtRec: 20ML,2X500P,2XLP,2X4LP	#Containers: 7			Scr: Alpha: 1.92E-07 uCi/Sa Beta: 3.93E-07 uCi/Sa	
24HNNH1W-2-AG							
J5J250137-3-SAMP							
							
10/24/2005 12:04		AmtRec: 20ML,2X500P,2XLP,2X4LP	#Containers: 7			Scr: Alpha: 1.92E-07 uCi/Sa Beta: 3.93E-07 uCi/Sa	
25HNM67-1-AA-B							
J5J260000-557-BLK							
							
10/24/2005 10:27	25.50g,in	AmtRec:	#Containers: 1			Scr: Alpha: Beta:	
26HNM67-1-AC-C							
J5J260000-557-LCS							
							
10/24/2005 10:27	24.60g,in	UNSF2780 11/29/05,pd 03/22/05,r	#Containers: 1			Scr: Alpha: Beta:	
27HNM67-1-AD-C							
J5J260000-557-LCS							
							
10/24/2005 10:27	22.70g,in	UNSC0934 11/29/05,pd 09/17/04,r	#Containers: 1			Scr: Alpha: Beta:	
28HNM67-2-AA-B							
J5J260000-557-BLK							
							
10/24/2005 10:27		AmtRec:	#Containers: 1			Scr: Alpha: Beta:	
<div style="display: flex; justify-content: space-between;"> <div> STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 4 Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added </div> <div> ISV - Insufficient Volume for Analysis </div> <div> WO Cnt: 28 ICOC v4.8.16 </div> </div>							

12/8/2005 11:08:45 AM

Sample Preparation/Analysis

Balance Id:

DH UNat_Laser PrpRC5015

Pipet #: _____

SS Total Uranium by KPA

Report Due: 12/08/2005

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:


Batch: 5299557

ug/L

Sep2 DT/Tm Tech:


SEQ Batch, Test: None

Prep Tech:

								
Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:


29HNM67-2-AC-C

J5J260000-557-LCS

								
10/24/2005 10:27	AmtRec:	#Containers: 1	Scr:	Alpha:	Beta:			

30HNM67-2-AD-C

J5J260000-557-LCS

								
10/24/2005 10:27	AmtRec:	#Containers: 1	Scr:	Alpha:	Beta:			

Comments: HM6AF-SAMP "Comments: Alpha and Beta aliq reduced as determined by wt scn due to dis-solid content. Bg"
HM6AX-SAMP "Comments: Alpha and Beta aliq reduced as determined by wt scn due to dis-solid content. Bg"
HM6CN-SAMP "Comments: Alpha aliq reduced as determined by wt scn due to dis-solid content. Bg"
HM6CR-SAMP "Comments: Alpha aliq reduced as determined by wt scn due to dis-solid content. Bg"
HM6CV-SAMP "Comments: Alpha aliq reduced as determined by wt scn due to dis-solid content. Bg"
HNE5H-SAMP "Comments: Alpha and Beta aliq reduced as determined by wt scn due to dis-solid content. Bg"
HNH1P-SAMP Comments
HNH1W-SAMP "Comments: Alpha aliq reduced as determined by wt scn due to dis-solid content. Bg"

All Clients for

384868, PACIFIC NORTHWEST NATIONAL LABORATORIES, PACIFIC NORTHWEST NATIONAL LAB, PO, 37011

HM6AF1AG-SAMP Constituent List:

Uranium	RDL:1.44E-01	ug/L	LCL:	UCL:	RPD:
HNE5H1AH-MS:					
HNE5H2AH-MS:					
HNM671AA-BLK:					
Uranium	RDL:1.44E-01	ug/L	LCL:	UCL:	RPD:
HNM671AC-LCS:					
Uranium	RDL:0.144343	ug/L	LCL:70	UCL:130	RPD:20
HNM671AD-LCS:					
Uranium	RDL:0.144343	ug/L	LCL:70	UCL:130	RPD:20

12/8/2005 11:08:45 AM

Sample Preparation/Analysis

Balance Id:

DH UNat_Laser PrpRC5015

Pipet #: _____

SS Total Uranium by KPA

Report Due: 12/08/2005

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:


Batch: 5299557

ug/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:

								
Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:

HNM672AA-BLK:
Uranium RDL:0.144343 ug/L LCL: UCL: RPD:

HNM672AC-LCS:
Uranium RDL:0.144343 ug/L LCL:70 UCL:130 RPD:20

HNM672AD-LCS:
Uranium RDL:0.144343 ug/L LCL:70 UCL:130 RPD:20

HM6AF1AG-SAMP Calc Info:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HNE5H1AH-MS:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HNE5H2AH-MS:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HNM671AA-BLK:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HNM671AC-LCS:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HNM671AD-LCS:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HNM672AA-BLK:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HNM672AC-LCS:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

HNM672AD-LCS:
Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____






Date: _____

12/9/2005 4:25:44 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/9/2004, 12/14/2005, Batch: '5299557', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
5299557				
AC		Cnt1C	GiroirB 11/22/2005 7:30:18	
SC		wagarr	IsBatched 10/26/2005 4:15:29 PM	ICOC_RADCALC v4.8.15
SC		GiroirB	InPrep 11/22/2005 7:30:18 AM	RICH-RC-5015 REVISION 4
SC		ScottM	InPrep2 12/2/2005 7:27:31 AM	RICH-RC-5015 REVISION 4
SC		ScottM	Prep2C 12/3/2005 9:57:49 AM	RICH-RC-5015 REVISION 4
SC		BarbosaH	Cnt1C 12/5/2005 2:29:29 PM	RICH-RC-5058 REVISION 6
SC		BarbosaH	Cnt1C 12/8/2005 4:58:07 PM	RICH-RC-5058 REVISION 6
AC		ScottM	12/2/2005 7:27:31	
AC		ScottM	12/3/2005 9:57:49	
AC		BarbosaH	12/5/2005 2:29:29 PM	
AC		BarbosaH	12/8/2005 4:58:07 PM	
AC: Accepting Entry; SC: Status Change STL Richland Richland Wa.				
Page 1				Grp Rec Cnt: 5 ICOCFractions v4.8.15

11/30/2005 11:39:30 AM		Sample Preparation/Analysis				Balance Id:		
384868, Pacific Northwest National Laboratories Pacific Northwest National Lab		88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION IZ COLIFORM BY METHOD 9223 5I CLIENT: HANFORD				Pipet #:		
Report Due: 12/08/2005						Sep1 DT/Tm Tech:		
Batch: 5299632 WATER		PM, Quote: SS , 57671				Sep2 DT/Tm Tech:		
SEQ Batch, Test: None						Prep Tech:		
								
Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 HM936-1-AC								
J5J210189-4-SAMP								
								
10/20/2005 12:31		AmtRec: 20ML,500P,2XLP,2X4LP		#Containers: 6		Scr:	Alpha: -2.29E-04 uCi/Sa	Beta: 5.02E-04 uCi/Sa
2 HM936-1-AH-X								
J5J210189-4-DUP								
								
10/20/2005 12:31		AmtRec: 20ML,500P,2XLP,2X4LP		#Containers: 6		Scr:	Alpha: -2.29E-04 uCi/Sa	Beta: 5.02E-04 uCi/Sa
3 HNNFA-1-AA-B								
J5J260000-632-BLK								
								
10/24/2005 08:00		AmtRec:		#Containers: 1		Scr:	Alpha:	Beta:
4 HNNFA-1-AC-C								
J5J260000-632-LCS								
								
10/24/2005 08:00		AmtRec:		#Containers: 1		Scr:	Alpha:	Beta:
Comments:								
All Clients for Batch:								
384868, Pacific Northwest National Laboratories Pacific Northwest National Lab, SS , 57671								
HM9361AC-SAMP Constituent List:								
HNNFA1AA-BLK:								
HNNFA1AC-LCS:								
HM9361AC-SAMP Calc Info:								
STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 4								
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added ICOC v4.8.16								

11/30/2005 11:39:31 AM

Sample Preparation/Analysis

Balance Id:

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
IZ COLIFORM BY METHOD 9223
5I CLIENT: HANFORD

Pipet #: _____

Report Due: 12/08/2005

Sep1 DT/Tm Tech:

Batch: 5299632

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:



Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
HNNFA1AA-BLK:								
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				
HNNFA1AC-LCS:								
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B				

Approved By _____ Date: _____

11/30/2005 11:39:31 AM

Sample Preparation/Analysis

Balance Id:

384868, Pacific Northwest National Labortories ,
Pacific Northwest National Lab

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
IZ COLIFORM BY METHOD 9223
5I CLIENT: HANFORD

Pipet #:

Report Due: 12/08/2005

604799

Sep1 DT/Tm Tech:

Batch: 5334372 WATER

PM, Quote: HC , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 HNH18-1-AC								
J5J250145-1-SAMP								
<div></div>								
10/24/2005 08:00		AmtRec: 20ML,500P,2XLP	#Containers: 4		Scr:	Alpha: 2.21E-07 uCi/Sa	Beta: 2.68E-07 uCi/Sa	
2 HNH2C-1-AC								
J5J250145-2-SAMP								
<div></div>								
10/24/2005 13:51		AmtRec: 20ML,500P,2XLP	#Containers: 4		Scr:	Alpha: 6.43E-07 uCi/Sa	Beta: 7.44E-07 uCi/Sa	
3 HNH2C-1-AG-X								
J5J250145-2-DUP								
<div></div>								
10/24/2005 13:51		AmtRec: 20ML,500P,2XLP	#Containers: 4		Scr:	Alpha: 6.43E-07 uCi/Sa	Beta: 7.44E-07 uCi/Sa	
4 HQ5L2-1-AA-B								
J5K300000-372-BLK								
<div></div>								
10/24/2005 08:00		AmtRec:	#Containers: 1		Scr:	Alpha:	Beta:	
5 HQ5L2-1-AC-C								
J5K300000-372-LCS								
<div></div>								
10/24/2005 08:00		AmtRec:	#Containers: 1		Scr:	Alpha:	Beta:	
Comments:								
All Clients for Batch:								
384868, Pacific Northwest National Labortories Pacific Northwest National Lab, HC , 57671								
HNH181AC-SAMP Constituent List:								
STL Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 5								
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added ICOC v4.8.16								

11/30/2005 11:39:32 AM

Sample Preparation/Analysis

Balance Id:

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

IZ COLIFORM BY METHOD 9223

5I CLIENT: HANFORD

Report Due: 12/08/2005


Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Batch: 5334372

SEQ Batch, Test: None

Prep Tech:



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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HQ5L21AA-BLK:

HQ5L21AC-LCS:

HNH181AC-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
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HQ5L21AA-BLK:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
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HQ5L21AC-LCS:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
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Approved By

Date: